

COUNCIL OF EUROPE



CONSEIL DE L'EUROPE

Strasbourg, 9 April 2021

CDDG(2021)5
Item 3.1.2 of the agenda

**EUROPEAN COMMITTEE ON DEMOCRACY AND GOVERNANCE
(CDDG)**

**REPLIES TO THE QUESTIONNAIRE ON NEW TECHNOLOGIES AND
THE DIFFERENT STAGES OF THE ELECTORAL PROCESS**

Secretariat Memorandum
prepared by the
Directorate General of Democracy
Democratic Governance Division

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AUSTRIA

QUESTIONNAIRE

When examining your replies, the Secretariat of the CDDG may need to contact you for further enquiries or clarifications. To that end, we would appreciate that you provide your contact details:

Author of the reply

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Questions

- 1.** In which stages of the electoral cycle are digital technologies used (see the attached paper by Ms Ardita Driza Maurer)? What kind of digital technologies are used? Does the use of digital technologies in the electoral cycle follow an overall digitisation strategy?

1) Legal framework:

Electoral legislation is no task falling under the direct responsibility of the EMB but rather comes under the competence of parliament. Irrespective, drafts for legislative acts are supported by ICT, inter alia a specialized software called "E-Recht".

2) Planning and preparation for the implementation of electoral activities:

Electoral planning is partially supported by computer-aided planning tools. All legal acts necessary in the preparation process are documented in an electronic filing system called "ELAK" (Elektronischer Akt = federal electronic file management). Training of electoral staff is supported by specifically designed "e-learning tools", which run on a secure platform of the Federal Ministry of the Interior.

Printing matters needed for the elections (ranging from voting cards to minute forms) can be ordered by the competent authorities through a "web-shop type" platform of the Federal Ministry of the Interior. Most types of printing matters are both available in a paper and a digital (generally PDF) format.

The administration of electoral precincts and polling stations is run with a specific electronic tool, the so-called "Zentrales Wahlsprengel-Tool" (Central Electoral Precinct Tool). Municipals can enter and change all information online, the final lists of polling stations are generated with this tool. These address lists are available online, geo-coded, and also forwarded to international election observers.

3) Training and education of voters, regulation of conduct of observers:

Voter information is provided through the EMB's barrier-free website as well as different social media channels. Comprehensive material is provided in an easy to read web format. Visually impaired voters can also access certain audio files. Additional information on the voting process

4) Registration of voters, political parties and election observers; nomination of parties and candidates:

No active registration of Austrian voters is required. All voters with a main residence in Austria are automatically registered in their home municipality. Since 2018, all voter data have been stored in a centralized application, the so-called "Zentrales Wählerregister" (Central Electoral Register). The Register is technically run by the Federal Ministry of the Interior but fed and maintained on the local level by the respective municipalities. The introduction of the Register has significantly facilitated procedures for both the municipalities and the citizens and further improved the general data quality. The Register also allows for a nation-wide overview of all issued voting cards.

Voter lists are generated with the Central Electoral Register but, for data protection reasons, they cannot be publicly scrutinized online but only at the competent municipal office. Before 2018, all local voter data were collected in a summary list (provided to the parties represented in parliament, in particular for voter information and campaigning purposes) but no data cleansing was possible as there was no unified IT-based register.

The nomination of candidates through electoral proposals is carried out on paper (as physical signatures are required) but the data of all candidates are subsequently electronically processed for various purposes ranging from the administration of the candidates to the production of ballot sheets.

5) Electoral campaigning, including official information addressed to electors:

Electoral campaigning material can be distributed to voters registered in the Central Electoral Register as parties represented in parliament have access to the data. However, campaigning information of parties/candidates is usually sent out physically, i.e. via postal services, not through e-mail, particularly as an e-mail address is not a required piece of information in the Register.

6) Voting operations, including polling, counting and tabulating results:

Casting the vote is an entirely paper-driven system. There is no electronic voting of any kind in Austria and used ballot sheets are neither scanned nor otherwise stored or counted electronically.

Voter lists ("Wählerverzeichnisse") in polling stations were generated with the data in the Central Electoral Register but are printed out on paper to ensure complete availability, even in case of a power outage. The consecutive lists of voters actually casting their votes at the polling station ("Abstimmungsverzeichnis") can be kept electronically. In case of a power outage, however, any electronic "Abstimmungsverzeichnis" has to be reconstructed on paper according to the consecutive numbers entered into the voter lists.

7) Election results announcement, including transmission and publication of results, the resolution of electoral disputes, reporting, auditing:

Ballot sheets are counted directly at the individual polling stations. The preliminary results are transmitted by any possible means of communication (phone call, e-mail, fax, text message, ...) as soon as the count was finished by the local election board. Preliminary results are fed into an ICT system of the Federal Ministry of the Interior on the provincial level (nine provincial electoral boards) and are usually published on election night. Results of voting cards (especially postal ballots) are counted by District Electoral Boards after election day; preliminary voting cards results are also reported up the chain by any possible means of communication.

The final results are usually given around 3 weeks after an election and are based on minutes. These minutes are detailed forms, which make election boards follow a strict set of rules and procedures as well as certain check lists. Final results are officially decided by the election boards. Minutes are only kept on paper and, in contrast to the preliminary results, are legally binding (see comment on the Constitutional Court review below, 8.).

Preliminary and final results are made available on the Ministry's website with a comprehensive and interactive program and also in an Open Data format.

8) Post-election duties including the destruction and/or archiving of materials.

The Austrian Constitutional Court demands a paper-based electoral process in order to review all relevant steps. Hence, even if ICT is used in voting operations, the eventual documentation and final approval is always carried out on paper.

According to data protection requirements, most documents and files, particularly those with individual personal information of voters, are destroyed once an election is considered uncontested. All other administrative steps and correspondence are temporarily archived, usually in the electronic filing system, and deleted after a certain period of time.

2. How are the following issues addressed in regulations, guidelines, contracts or internal procedures of or applicable to the Election Management Body (EMB) or their partner organisations:

- a. Human rights-centred use of Information and Communication Technology (ICT) in the electoral field

Not applicable.

- b. Detailed requirements stemming from human rights are necessary to regulate the use of ICT in elections

Not applicable.

- c. Usability of ICT

Usability of ICT used in the electoral cycle is a constant goal while keeping other perspectives such as data protection or security issues in mind. Feedback of stakeholders is gathered, experiences and reports are fed into any reviews and updates.

- d. The interplay of data protection and requirements relating to the secrecy of the vote

Data protection and secrecy of the vote guarantees are known to be very strict in Austria and enshrined directly in the law (both constitutional law and regular laws and regulations). Additional regulations or agreements mirror these legal provisions.

- e. Transparency

Such issues are generally not handled by the EMB but by other organizational units of the Federal Ministry of the Interior (including ICT departments and Cyber Security experts) following the highest standards and protocols required in this field.

- f. Cybersecurity issues, including risk strategies, protection measures, verification possibilities, and contingency planning

Such issues are generally not handled by the EMB but by other organizational units of the Federal Ministry of the Interior (including ICT departments and Cyber Security experts) following the highest standards and protocols required in this field.

- g. Control, enforcement and accountability requirements

Not applicable.

- h. Issues related to resources and to co-operation with the private sector should be addressed.

Not applicable.

If so, provide details and comments (how are these issues regulated)?

- 3.** Are there any plans to extend the use of digital technologies and, if yes, in which stages of the electoral cycle? Can you specify what type of technology is envisaged? And are there any plans for reviewing the relevant regulations or introducing new ones?

Not applicable.

- 4.** Have any significant difficulties arisen from the use of digital technologies in specific stages of the electoral cycle in the past? How were these difficulties resolved?

Not applicable.

- 5.** Has the COVID-19 pandemic had an impact in the field of elections? For instance, has it given rise to a public debate on the organisation of elections in general or as regards the introduction of new technologies in elections? Have changes in the electoral system been introduced to ensure the organization of elections during the pandemic? If yes, were these changes introduced considered effective?

COVID-19 has not had any influence on the electoral legislation yet but special protective measures have been adopted and applied.

- 6.** What are the regulations applying to procurement as regards the provision of digital technologies by private companies?

- The PPPI Service Center or (national competence center for innovation procurement) acts as the single point of contact for pre-commercial procurement and innovation procurement issues in Austria. It also initiates and conducts pilot projects and offers services in the fields of further education and training, in addition to running the innovation platform www.ioeb-innovationsplattform.at.

The PPPI Service Center was established within the Federal Procurement Agency (BBG) in 2013. The legal basis for this agency is the federal act « Bundesbeschaffung GmbH-Gesetz »

- E-Invoicing directive (directive 2010/45/EU with regard to the use of electronic invoices in public procurement. The directive aims to make mandatory provision for the use and acceptance of electronic invoices (eInvoices) in public procurement. In Austria, it has applied since 1 January 2014 that the federal government only accepts electronic invoices (cf. Section 5 Par. 2 IKTKonG).
- eProcurement is also essential for public administration for cross-border procurement. For example, government purchasing could be taken care of by Bundesbeschaffung GmbH. Existing standards such as the PEPPOL transport infrastructure and interfaces were taken into account.

- 7.** Are resources made available for the use of digital technologies adequate?

Yes.

- 8.** Would you find an added value in greater exchange of information/ guidance in this area, at international level?

Yes.

- 9.** Is there any additional information that you would like to provide, in relation to any stage of the electoral cycle?

No.

- 10.** Additional specific aspects on which delegations may want to provide information:

- a. Does the EMB hire and involve personnel with a background in computer-science, engineering or a related field at drafting regulations, guidelines, contracts and procedures? What is their mission?

Experts in computer science or engineering are hired by other organizational units of the Federal Ministry of the Interior and co-operate with and support the Department of Electoral Affairs in its role as the EMB.

- b. How are the systems, the operational infrastructure as well as the operational and maintenance procedures scrutinized? Is public scrutiny supported for example by publishing the source code of custom software? What are the roles of the EMB and other organisations (e.g. organisations on lower levels of government) at enforcing compliance with security-sensitive requirements?

As described above, the use of ICT in the electoral cycle is limited, hence approaches such as publishing source codes do not apply.

- c. Are there any system-independent procedures defined to verify the correctness of critical data held and computations performed by the systems in question (e.g. digitalised votes, counting, tabulation, election results; voter register)?

See comment above on the need of complete verifiability through a paper-based system. Otherwise: Not applicable.

BELGIUM (Federal Interior Service)

In reviewing your responses, the CDDG Secretariat may need to contact you for further questions or clarifications. To this end, we would be grateful if you could provide us with your contact details:

Author of the response

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Questions

1. At what stages of the electoral cycle are digital technologies used (see the attached paper by Ms Ardita Driza Maurer)? What types of digital technologies are used? Does the use of digital technologies in the electoral cycle follow an overall digitisation strategy?

<u>Cycle</u>	<u>Technology</u>
Voter training and education, regulation of the conduct of observers	Digitisation
Registration of voters, political parties and election observers; nomination of parties and candidates. Registration and handling of questions/issues that may lead to a referendum (popular vote).	Digitisation Cloud computing
Voting operations, including polling, counting and tabulation of results.	Scanning Cloud computing (-> this does not concern voting)
Announcement of election results, including transmission and publication of results, settlement of electoral disputes, report writing, auditing	Digitisation Cloud computing

The overall strategy is as follows:

- Tend towards "Digital by default".
- But always remain accessible via traditional/manual procedures for a public that does not have access to digital or does not know how to use digital technologies.

2. How are the following issues addressed in, or applicable to, the internal regulations, guidelines, contracts or procedures of the EMB or their partner organisations?

a. Use of information and communication technologies (ICTs) with a human rights focus in the electoral field

The overall strategy is as follows:

- Tend towards "Digital by default".
- But always remain accessible via traditional/manual procedures for a public that does not have access to digital or does not know how to use digital technologies.

This is expressly provided for in our Government's agreement.

b. Detailed human rights requirements are needed to regulate the use of ICTs in elections

The overall strategy is as follows:

- Tend towards "Digital by default".
- But always remain accessible via traditional/manual procedures for a public that does not have access to digital or does not know how to use digital technologies.

This is expressly provided for in our Government's agreement.

c. Usability of ICTs

Our public procurement requirements for the development of new technologies in electoral matters include usability.

For example, international standards such as WCAG.

d. The interaction of data protection and voting secrecy requirements

The legislation on electronic voting (law of 07/02/2014 organising electronic voting with paper proof) provides that the vote is secret. No link can be made between the voter and his/her vote.

e. Transparency

The legislation on electronic voting (law of 07/02/2014 organising electronic voting with paper proof) provides in particular for this in terms of transparency:

- College of IT experts appointed by the Federal Parliament to monitor electronic voting and report on its use in elections. This report is published.
- Publication of the source code of the electronic voting software (without security features) after the election
- Provision of the software source code (without security features) before the election to experts appointed by the political parties
- Need to obtain, before the election, a positive opinion on the software following an audit of the software by an approved independent body. This opinion is published.

f. Cybersecurity issues, including risk strategies, protection measures, audit possibilities and contingency plans

Our processes (in particular our global scenario for organising elections) include software tests in terms of cybersecurity (pentesting, purple teaming, DDOS attacks, etc.).

Incident management plans are drawn up and simulations of crisis situations are carried out in order to verify the feasibility of these plans.

g. Control, enforcement and liability requirements

The legislation on electronic voting (law of 07/02/2014 organising electronic voting with paper proof) provides in particular for the following:

- The need to obtain, before the election, a positive opinion on the software following an audit of the software by an approved independent body. This opinion is published.
In terms of liability, our public procurement contracts precisely describe the responsibilities of private service providers (penalties, confidentiality, ownership, professional liability, etc.).

h. Issues relating to resources and cooperation with the private sector need to be addressed.

See above g.

If yes, provide details and comments (how are these issues regulated)?

3. Are there plans to expand the use of digital technologies and, if so, at what stages of the electoral cycle? Can you specify what type of technology is envisaged? And are there plans to revise relevant regulations or introduce new ones?

<u>Cycle</u>	<u>Technologie</u>	<u>Régulation</u>
Counting "paper" ballots	At first: computer not connected. Possibly in a second stage: computer connected	The specific regulations governing the organisation of the counting offices will have to be reviewed.
Administrative management of documents in the polling stations: digital minutes, digital voters' list allowing the presence of voters to be electronically recorded, etc.	At first: computer not connected. Possibly in a second phase: computer connected	The specific regulations governing the organisation of polling stations will have to be reviewed.
Internet voting	Firstly: organisation for voters residing abroad of an improved postal vote in whole or in part with online elements. Possibly in a second phase: deployment after several positive phases of a fully online vote	The voting regulations will have to be fundamentally reviewed in this respect.

4. Has the use of digital technologies at specific stages of the electoral cycle posed significant challenges in the past? How have these difficulties been resolved?

Belgium has been using electronic voting in a structural way since 1994 (voting on stand alone machines in polling stations).

Given the complexity of this technology, minor difficulties were encountered during its use. In order to avoid these difficulties and to guarantee transparency, various control mechanisms have been implemented in the process of organising electronic voting:

- College of IT experts appointed by the Federal Parliament to monitor and report on the use of e-voting in elections.

- Publication of the source code of the electronic voting software (without security features) after the election
- Making the software source code available before the election to experts appointed by the political parties
- Need to obtain, before the election, a positive opinion on the software following an audit of the software by an approved independent body
- Regular testing of the software (following software upgrades) also taking into account cyber security aspects.

It should be noted that the 1st generation electronic voting system (which is no longer in use now) experienced a bigger problem in 2014 due to a bug in its programming.

However, the control mechanisms put in place in the results tabulation application (an application that is independent of the electronic voting software) have made it possible to update this bug that occurred in very limited specific cases.

An in-depth analysis of the causes and impacts of this bug made it possible to determine, in full transparency, that it had no impact on the distribution of seats between the lists during the 2014 elections. These elections could therefore be validated.

5. Did the Covid-19 pandemic have an impact in the area of elections? For example, did it give rise to a public debate on the organisation of elections in general or on the introduction of new technologies in elections? Were any changes made to the electoral system to ensure the organisation of elections during the pandemic? If so, were these changes deemed effective?

There has been little impact here (no elections are planned before 2024).

However, since an early federal legislative election is always possible following a dissolution of Parliament, a risk analysis was conducted to predict the major orientations (including the budgetary aspect) of an election organisation during the VIDOC-19 period. A document containing practical recommendations for such an organization was drafted.

6. What are the regulations applicable to public procurement with regard to the supply of digital technologies by private companies?

These are the regulations on public procurement in the traditional sectors (law of 17 June 2016 on public procurement). It is therefore not the specific regulation for the defence and security sectors.

7. Are the resources made available for the use of digital technologies adequate?

Our resources (both in terms of personnel and financial means) have been relatively increased in 5 years. This is a definite plus.

However, these resources will have to continue to grow because the challenges in terms of IT security (especially in electoral matters) are becoming ever more important and complex.

8. Would you find added value in a greater exchange of information/guidance in this area at the international level?

Yes, such exchanges always bring a plus thanks to the know-how (both positive and negative) of foreign colleagues.

9. Would you like to provide additional information on any stage of the electoral cycle?

/

10. Other specific aspects on which delegations may wish to provide information:

a. Does the EMB hire and involve staff with training in computer science, engineering or a related field in the drafting of regulations, guidelines, contracts and procedures? What is their mission?

Yes, the mission of these experts is to provide the necessary added value to ensure that these documents contain essential and correct technical elements.

b. How are systems, operational infrastructure and operating and maintenance procedures controlled? Is public control supported, for example, by the publication of the source code of customised software? What are the roles of the EMB and other organisations (e.g. organisations at lower levels of government) in enforcing sensitive security requirements?

Various control mechanisms have been implemented in the process of organising electronic voting:

- College of IT experts appointed by the Federal Parliament to monitor and report on the use of e-voting in elections.
- Publication of the source code of the electronic voting software (without security features) after the election
- Provision of the software source code (without security features) before the election to experts appointed by the political parties
- Need to obtain, before the election, a positive opinion on the software following an audit of the software by an approved independent body
- Regular testing of the software (following software upgrades) also taking into account cyber security aspects.

c. Are system-independent procedures defined to verify the accuracy of critical data held and calculations made by the systems in question (e.g., digitised voting, counting, tabulation, election results; voter register)?

The legislation on electronic voting (law of 07/02/2014 organising electronic voting with paper proof) provides in particular for the following

- Need to obtain, before the election, a positive opinion on the software following an audit of the software by an approved independent body. This opinion is published.

BELGIUM (Flemish Region)

QUESTIONNAIRE

When examining your replies, the Secretariat of the CDDG may need to contact you for further enquiries or clarifications. To that end, we would appreciate that you provide your contact details:

Author of the reply

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Questions

1. In which stages of the electoral cycle are digital technologies used (see the attached paper by Ms Ardita Driza Maurer)? What kind of digital technologies are used? Does the use of digital technologies in the electoral cycle follow an overall digitisation strategy?

Legal framework: make use of collaboration platforms such as SharePoint

Information, training, questions, education: website

Registration of voters: federal state register

Nomination of parties and candidates: computer application with web technology
(procedure with forms is also possible)

Voting operations:

- 62% of the voters in Flanders make use of voting computers
- Entry of results, processing, seat calculation, creating official reports: computer application with web technology

Publication results: government website + transmission to the media

Post-election: digital archive

2. How are the following issues addressed in regulations, guidelines, contracts or internal procedures of or applicable to the Election Management Body (EMB) or their partner organisations:

- i. Human rights-centred use of Information and Communication Technology (ICT) in the electoral field

The organisation of elections is fully compliant with the Charter of Human Rights. There are several control and audit bodies, including a college of experts from the Flemish Parliament.

- j. Detailed requirements stemming from human rights are necessary to regulate the use of ICT in elections

The organisation of elections is fully compliant with the Charter of Human Rights. There are several control and audit bodies, including a team of experts from the Flemish Parliament.

k. Usability of ICT

The software meets today's standards of usability and ergonomics.

l. The interplay of data protection and requirements relating to the secrecy of the vote

The vote is secret. There is no possibility of individual votes being traced. There are several control and audit bodies to ensure that this is the case.

m. Transparency

The legislation on electronic voting and the use of information technology provides in terms of transparency:

- Team of IT experts appointed by the Flemish Parliament to monitor electronic voting and the use of information technology in all aspects of the organisation of elections. The report of this team is published.

- Publication of the source code of the electronic voting software (without security features) after the election

- Need to obtain, before the election, a positive opinion on the software following an audit of the software by an approved independent body.

n. Cybersecurity issues, including risk strategies, protection measures, verification possibilities, and contingency planning

All measures are taken to ensure the security of the applications, including penetration tests, external audits and supervision by the Federal Cyber Security Service. There is also risk analysis and business continuity planning.

o. Control, enforcement and accountability requirements

Issues related to resources and to co-operation with the private sector should be addressed.

Need to obtain, before the election, a positive opinion on the software following an audit of the software by an approved independent body.

In terms of liability, our public contracts precisely describe the responsibilities of private service providers (penalties, confidentiality, ownership, professional liability, ...) .

In terms of liability, our public contracts precisely describe the responsibilities of private service providers (penalties, confidentiality, ownership, professional liability, ...) .

If so, provide details and comments (how are these issues regulated)?

- 3.** Are there any plans to extend the use of digital technologies and, if yes, in which stages of the electoral cycle? Can you specify what type of technology is envisaged? And are there any plans for reviewing the relevant regulations or introducing new ones?

No decisions have yet been taken on this matter.

4. Have any significant difficulties arisen from the use of digital technologies in specific stages of the electoral cycle in the past? How were these difficulties resolved?

A number of functional shortcomings have been identified in the past which could be remedied by adapting the procedures. The secrecy of voting and security in general have never been compromised.

5. Has the COVID-19 pandemic had an impact in the field of elections? For instance, has it given rise to a public debate on the organisation of elections in general or as regards the introduction of new technologies in elections? Have changes in the electoral system been introduced to ensure the organization of elections during the pandemic? If yes, were these changes introduced considered effective?

There has been no impact so far. The next elections will not be held until 2024.

6. What are the regulations applying to procurement as regards the provision of digital technologies by private companies?

These are the regulations on public procurement in the classic sectors (law of 17 June 2016 on public procurement).

7. Are resources made available for the use of digital technologies adequate?

It is a decision of the Flemish Government and the Flemish Parliament to provide resources. There has been no problem with this in the past.

8. Would you find an added value in greater exchange of information/ guidance in this area, at international level?

It is always interesting to share information. Especially when it comes to the evolution of digital voting and Internet voting.

9. Is there any additional information that you would like to provide, in relation to any stage of the electoral cycle?

10. Additional specific aspects on which delegations may want to provide information:

- d. Does the EMB hire and involve personnel with a background in computer-science, engineering or a related field at drafting regulations, guidelines, contracts and procedures? What is their mission?

Yes, this mainly concerns legal experts in the field of privacy legislation or digital signatures and experts in cyber security.

- e. How are the systems, the operational infrastructure as well as the operational and maintenance procedures scrutinized? Is public scrutiny supported for example by publishing the source code of custom software? What are the roles of the EMB and other organisations (e.g. organisations on lower levels of government) at enforcing compliance with security-sensitive requirements?

The legislation on electronic voting and the use of information technology provides in:

- Team of IT experts appointed by the Flemish Parliament to monitor electronic voting and the use of information technology in all aspects of the organisation of elections. The report of this team is published.
- Publication of the source code of the electronic voting software (without security features) after the election
- Need to obtain, before the election, a positive opinion on the software following an audit of the software by an approved independent body.
- Regular testing of the software (following software upgrades) also taking into account cyber security aspects.

- f. Are there any system-independent procedures defined to verify the correctness of critical data held and computations performed by the systems in question (e.g. digitalised votes, counting, tabulation, election results; voter register)?

In the case of electronic voting, there is a paper trail through which a posteriori checks can be carried out. In the case of counting paper ballots, a number of checks are carried out by the 'head office' before the counting office is dissolved. Tabulation is entirely digital. Nevertheless, checks are carried out before, during and after the elections.

BOSNIA AND HERZEGOVINA

QUESTIONNAIRE

When examining your replies, the Secretariat of the CDDG may need to contact you for further enquiries or clarifications. To that end, we would appreciate that you provide your contact details:

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Questions

1. In which stages of the electoral cycle are digital technologies used (see the attached paper by Ms Ardita Driza Maurer)? What kind of digital technologies are used? Does the use of digital technologies in the electoral cycle follow an overall digitisation strategy?

The use of digital technologies in the election process in BiH was not significant.

2. How are the following issues addressed in regulations, guidelines, contracts or internal procedures of or applicable to the Election Management Body (EMB) or their partner organisations:

- p. Human rights-centred use of Information and Communication Technology (ICT) in the electoral field
- q. Detailed requirements stemming from human rights are necessary to regulate the use of ICT in elections
- r. Usability of ICT
- s. The interplay of data protection and requirements relating to the secrecy of the vote
- t. Transparency
- u. Cybersecurity issues, including risk strategies, protection measures, verification possibilities, and contingency planning
- v. Control, enforcement and accountability requirements
- w. Issues related to resources and to co-operation with the private sector should be addressed.

If so, provide details and comments (how are these issues regulated)?

3. Are there any plans to extend the use of digital technologies and, if yes, in which stages of the electoral cycle? Can you specify what type of technology is envisaged? And are there any plans for reviewing the relevant regulations or introducing new ones?

With the financial support of the Delegation of the European Union, the Central Election Commission of BiH drafted and sent to the Parliamentary Assembly of BiH the Strategy and the corresponding Action Plan of BiH for improving the integrity, transparency and efficiency of the electoral process.

The strategy focuses on four (4) priority areas for action:

- **Regulate the organization in a way to ensure efficiency and compliance,**
- **Build an agile and responsible organization for the conduct of elections,**
- **Modernize the model of realization of election events in order to ensure the integrity of data and processes,**
- **Build a model of continuous improvement and promote the role of the CEC BiH in improving the democracy.**

- 4.** Have any significant difficulties arisen from the use of digital technologies in specific stages of the electoral cycle in the past? How were these difficulties resolved?

The use of digital technologies in the election process in BiH was not significant.

- 5.** Has the COVID-19 pandemic had an impact in the field of elections? For instance, has it given rise to a public debate on the organisation of elections in general or as regards the introduction of new technologies in elections? Have changes in the electoral system been introduced to ensure the organization of elections during the pandemic? If yes, were these changes introduced considered effective?

Changes were introduced but the method of voting remained traditional and there was no application of digital technology.

- 6.** What are the regulations applying to procurement as regards the provision of digital technologies by private companies?

The BiH Public Procurement Law

- 7.** Are resources made available for the use of digital technologies adequate?

Sufficient resources for the use of digital technologies are not provided.

- 8.** Would you find an added value in greater exchange of information/ guidance in this area, at international level?

- 9.** Is there any additional information that you would like to provide, in relation to any stage of the electoral cycle?

In the process of maintaining the Central Voters' Register, information technology and special software packages are used to a greater extent. Data from Civil register are automatically downloaded, processed and based on them, excerpts from Central Voter' Register for Polling Stations are created.

Also, after entering data on political entities, signatures of support and candidates, further checks are performed with the help of IT tools as well as statistics.

In the process of consolidation of the results after the manual entry of data from the polling station by municipal/city election commission, their automatic verification is performed through the application software, which includes the publication of results.

10. Additional specific aspects on which delegations may want to provide information:

- g. Does the EMB hire and involve personnel with a background in computer-science, engineering or a related field at drafting regulations, guidelines, contracts and procedures? What is their mission?

The Central Election Commission of BiH has established the Secretariat of the Central Election Commission of BiH, which performs administrative, technical and professional tasks.

Within the secretariat, there is a Department for Information and Communication Technologies that employs staff with prior knowledge in computer science, engineering or related fields, with a total of 10 positions under the staff establishment plan.

- h. How are the systems, the operational infrastructure as well as the operational and maintenance procedures scrutinized? Is public scrutiny supported for example by publishing the source code of custom software? What are the roles of the EMB and other organisations (e.g. organisations on lower levels of government) at enforcing compliance with security-sensitive requirements?

The source code used in the electoral process has not been published so far. The process of CVR maintenance, preparation of excerpts and collection, processing and publication of results was performed through information technologies using applications developed specifically for that purpose.

- i. Are there any system-independent procedures defined to verify the correctness of critical data held and computations performed by the systems in question (e.g. digitalised votes, counting, tabulation, election results; voter register)?

No

CROATIA

QUESTIONNAIRE

When examining your replies, the Secretariat of the CDDG may need to contact you for further enquiries or clarifications. To that end, we would appreciate that you provide your contact details:

Author of the reply

- Country: Croatia
- Organisation / Election Management Body (EMB):
 1. principal author: State Electoral Commission of the Republic of Croatia
 2. contributed: Ministry of Justice and Public Administration
- Name: Leda Lepri
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Questions

1. In which stages of the electoral cycle are digital technologies used (see the attached paper by Ms Ardita Driza Maurer)? What kind of digital technologies are used? Does the use of digital technologies in the electoral cycle follow an overall digitisation strategy?

When it comes to electoral laws, the Act on the Election of National Minority Councils and Representatives is the only electoral law that prescribes that the State Electoral Commission of the Republic of Croatia (hereinafter: Commission) has to ensure central IT support for conducting the elections for national minority council members and national minority representatives and that it has to cover central mode for performing the nominations and the control of the lists of candidates and nominations, the central mode of processing the decisions on electoral bodies and polling stations, central control of records of electoral bodies, the central method of processing the polling results and other IT services essential for conducting the elections. The funding for providing the described central IT support is allocated in the National Budget of the Republic of Croatia. (Article 33 of the Act on the Election of National Minority Councils and Representatives)

However, IT support as mentioned as above is assured at other electoral processes as well, even though it is not prescribed. The Commission has developed a series of IT systems that mimic the traditional process and enhance it. From the user's perspective the IT system is in the form of web and mobile applications. Technically, cloud-native technology is being used alongside with legacy systems.

According to the Act on Financing of Political Activities, Election Campaign and Referendums, the Commission of the Republic of Croatia has to maintain the Financial Control Information System through which entities, whose electoral campaign financing is being supervised, submit their financial reports. Those

reports are being published on Commission website. The system is being used pre-election and post-election.

In addition, it is to be noted that there is no specific digitalisation strategy focusing on election, although there is a general public administration digitalisation strategy.

IT support is used in (1) pre-election period, (2) on election day and (3) in post-election period. IT support covers i.a. (1) the entry of lists candidates, cross check of personal data and issue of decisions on validity of candidacies; creation of decisions relating to lower level commission appointment and polling station committee appointment as well as creation of decisions relating to polling stations; ordering and distribution of ballot papers, minutes and voting boxes; entry of authorised observers and generating a list of them which is then distributed to polling stations; (2) creation of provisional data on voter turnout and results on election day; generation of election results and minutes of election commissions; (3) generation of final results and election IT analysis. Some systems are being used during the whole process such as the digital overview and review of costs of lower level commissions. The Commission maintains a vivid web page which is being updated on a daily basis with new information for public and election participants during election time.

It is to be noted that the maintenance of the voter registry is not within the competences of the Commission s central mode for performing the nominations and the control of the lists of candidates and nominations, the central mode of processing the decisions on electoral +bodies and polling stations, central control of records of electoral bodies, the central method of processing the polling results and other IT services essential for conducting the elections. o this answer does not touch upon it.

Regarding Part of stage 4) Registration of voters, political parties and election observers; nomination of parties and candidates, the registration of voters is the responsibility of the Ministry of Justice and Public Administration.

The Register of Voters is a collection of personal data on all voters of Croatian citizens residing in the Republic of Croatia and Croatian citizens not residing in the Republic of Croatia and citizens of EU Member States exercising the right to vote in the Republic of Croatia.

The Voter register is held in an electronic form in a company owned by the Republic of Croatia and the City of Zagreb. The register is digitized according to the legal framework, digitizing data into a digital form.

Based on the Voters register and digitized data, e-services are built enabling citizens to handle their registration online:

- *Active registration, a procedure by which voters who do not reside in the Republic of Croatia are entered in a special list of actively registered voters in the elections for the Croatian Parliament, the President of the Republic of Croatia, the state referendum and the election of members to the European Parliament. The access to the online service requires an identification and authentication through the National Identification and Authentication System.*

- *Pre-registration, a procedure by which voters residing in the Republic of Croatia, who are abroad on election day or national referendum, are allowed to vote abroad in elections to the Croatian Parliament, the President of the Republic of Croatia, a state referendum and the election of members of the European Parliament. The access to the online service requires an identification and authentication through the National Identification and Authentication System.*
- *Temporary registration, a procedure by which voters residing in the Republic of Croatia are enabled to temporarily register in the list of voters of another city or municipality in the Republic of Croatia, depending on the place where they will be on the day of elections or state referendum. The access to the online service requires an identification and authentication through the National Identification and Authentication System.*
- *Insight into the data entered in the voter register, after the announcement of the elections, the citizens will have access to the data entered in the voter register related to the personal name and address of the voter. The law governing the protection of personal data applies to recipients of personal data (citizens). The access to the online service requires an identification and authentication through the National Identification and Authentication System.*

The voters list is a part of the voters register that is compiled after the register is closed. Depending on the type of elections held, the voters list contains data on voters residing in the Republic of Croatia with valid identity cards, voters who have temporarily registered in the register of voters outside their place of residence, voters who have been issued certificates for voting outside their place of residence, voters who have previously registered and actively registered voters who do not reside in the Republic of Croatia.

When elections are held in the entire territory of the Republic of Croatia, statistical data from the closed voters list are published by the Ministry of Justice and Administration. The competent administrative body publishes statistical data from the closed voters list when elections are held in the local and regional self-government unit. The data are published on the website of the Ministry of Justice and Administration or the county or the City of Zagreb within 24 hours of the conclusion of the voters list.

The digitization is performed in accordance with the Law on the Voter register, the Law on the State Information Infrastructure of Croatia (OG 92/14) and the LAW ON THE IMPLEMENTATION OF THE REGULATION (EU) No 910/2014 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 23 July 2014 on electronic identification and trust services for electronic transactions in the internal market and repealing Directive 1999/93/EC (OG 62/2017) and the LAW ON THE IMPLEMENTATION OF THE GENERAL DATA PROTECTION REGULATION (OG 42/2018).

The digitization follows the principles set in the e-Croatia 2020 Strategy.

2. How are the following issues addressed in regulations, guidelines, contracts or internal procedures of or applicable to the Election Management Body (EMB) or their partner organisations:

- x. Human rights-centred use of Information and Communication Technology (ICT) in the electoral field

There is no special regulation. The IT system should reflect the functionalities set out in the legislation.

- y. Detailed requirements stemming from human rights are necessary to regulate the use of ICT in elections

There is no special regulation. The IT system should reflect the functionalities set out in the legislation.

- z. Usability of ICT

IT system is assessed from the user's point of view after elections which, together with the traffic analysis, serves as a basis for further improvements. There is no special regulation on that account.

- aa. The interplay of data protection and requirements relating to the secrecy of the vote

Special care is taken to ensure data protection during the conduct of elections.

The Act on the Election of National Minority Councils and Representatives is the only electoral law that has provisions for data protection (Articles 85-93). In the absence of data protection provisions in other electoral laws, the Commission issues Mandatory Instruction for Data Protection in order to ensure legitimate use of data of all subjects involved in elections (within the competencies of the Commission). Additional data protection provisions are included in the contract with the IT provider in order to ensure a valid use of data in IT systems.

As there is no e-voting in Croatia, there is no technical issue relating to the secrecy of vote in that respect.

- bb. Transparency

There is no special regulation.

Data on provisionally results and final results are publicly available on the website of the Commission.

Data on candidates, polling stations, polling stations committees and lower level electoral commission which are partially generated from the IT system are also published online.

Financial reports of election participants are available at website of the Commission in a manner prescribed by the Act on Financing of Political Activities, Election Campaign and Referendums.

- cc. Cybersecurity issues, including risk strategies, protection measures, verification possibilities, and contingency planning

IT system is being audited both internally and externally and contingency measures are developed in detail (such as business continuity plans, privileged access management policies, regular security patch update, security polices, DLP, etc.).

Risk assessment measures during the whole electoral process are also put in place.

Penetration tests are being conducted both internally by the IT provider as well by two independent authorities which reports are used for the improvements of the systems.

Commission also uses the services of the national CERT in order to check the security of used IT systems and as assistance in case of cybersecurity issues.

- dd. Control, enforcement and accountability requirements

There is no special regulation.

A response team with set procedures is available in case of any cybersecurity threat, as well as the national CERT as mentioned above under 2 f.

- ee. Issues related to resources and to co-operation with the private sector should be addressed.

Financial resources for the work of the Commission stem from the State Budget. The Commission cooperates with other public authorities, while the IT provider is a firm which is owned by the Republic of Croatia and the City of Zagreb jointly.

If so, provide details and comments (how are these issues regulated)?

Regarding the registration of voters, the ICT in the voter registration cycle is used according to the Law on the Voters register. The Act determines the structure, content and manner of keeping the voter register, the procedure of entry, correction, deletion, conclusion, preparation of excerpts and issuance of documents, and the manner of data processing for the purposes of elections and referendums. It stipulates that regulations governing the protection of personal data and information security shall apply to the collection, processing and use of data.

The aspects of data protection are elaborated in accordance with GDPR in detail in the yearly contract with the company operating the Voters register defining data categories, disclosure of personal data, notification of personal data breaches and especially obligations and rights in handling personal data.

Regarding transparency, all data in the Voters register can be obtained from data subjects via the eCitizens Portal, where an identification and authentication through the National Identification and Authentication System must be performed.

The operator of the Voters register is a company owned by the State and the City of Zagreb. The company has the ISO 9001, the international standard for quality management systems and the ISO/IEC 27000 Family of Standards, a series of information security standards that provide a global framework for information security management practices implemented. The security aspects are covered in the yearly contract. The cybersecurity aspects are covered by the Law on Cybersecurity of Key Service Operators and Digital Service Providers.

- 3.** Are there any plans to extend the use of digital technologies and, if yes, in which stages of the electoral cycle? Can you specify what type of technology is envisaged? And are there any plans for reviewing the relevant regulations or introducing new ones?

Given the existing legal framework, no significant changes in the use of digital technologies in the electoral cycle is expected. After each election, the system is being audited by its users and improvements proposed and introduced for next elections. From the technical side, given the fact that some parts of the system are used for a decade, the IT provider improves the system by introducing cloud-native technology.

The Commission is not competent to initiate the procedure of legislative amendments.

In the voter registration cycle, a new e-service is under development that will enable the voters to change their nationality online via the eCitizens Platform with eIDAS assurance level substantial. The nationality is an important element in the in the elections for the Croatian Parliament since citizens of a national minority can vote for their representatives for the Parliament.

The Programme of the Government of the Republic of Croatia 2020-2024 has not foreseen or scheduled any legislative amendments or legislative activities vis-à-vis electoral law for the period 2020-2024.

- 4.** Have any significant difficulties arisen from the use of digital technologies in specific stages of the electoral cycle in the past? How were these difficulties resolved?

No particular difficulties arose from the use of digital technologies apart from the fact that certain digital literacy is needed in order to use the IT system which can prove to be difficult to some people and may dissuade them from taking part in election as election officials.

From the side of voters, all digital solutions relating to the registration of voting rights (which is not within the competencies of the Commission) have their analogue alternative.

No difficulties have been noted so far in the area of voter registration.

5. Has the COVID-19 pandemic had an impact in the field of elections? For instance, has it given rise to a public debate on the organisation of elections in general or as regards the introduction of new technologies in elections? Have changes in the electoral system been introduced to ensure the organization of elections during the pandemic? If yes, were these changes introduced considered effective?

Pandemic parliamentary elections were held in July 2020 in Croatia and the pandemic has had a direct impact on the manner in which elections were prepared. For example education of lower level commissions and polling station committee members was held online.

Education of civil servants handling the registration of voters was held online.

Special rules of procedure were introduced in order to minimise the risk of COVID-19 spread during the election process which were prepared in collaboration with the Croatian Institute for Public Health. The latter delivered three recommendations, one for securing epidemiological measures during election process regarding the collecting of voters' signatures, the other for preventing COVID-19 infection during election gatherings (meaning election campaign) and the third for securing epidemiological measures during election process regarding the work of electoral bodies. The Commission issued two technical instructions with respect to the election day - one relating to voting at regular polling stations and the other to voting at polling stations in social welfare institutions.

New rules were put in force in order to enable COVID-19 positive voters and self-isolated voters to vote which proved to be quite appropriate. COVID-19 positive voters were entitled to vote with the help of a trusted person (abiding other prerequisites set by law) with no contact to the polling station committee members. In such a manner they were not deprived of their right to vote on one side, and on the other side the health of polling station committee members was preserved. Self-isolated voters were entitled to vote at home, similar as other persons which are not able to approach the polling station on election day (abiding other prerequisites set by law) with additional precaution measures taken.

Necessary protective equipment for polling stations, polling station committee members and lower electoral committees and staff was provided by the government.

The above mentioned particularities of pandemic elections did not cause the introduction of any new technology.

Notwithstanding the pandemic, there is always the debate whether e-voting should be introduced since the Croatian Constitution and electoral laws provide exclusively for in-person voting on ballot papers. The introduction of e-voting would prerequisite the change of the Constitution with a 2/3 majority in the Parliament and this issue lays beyond the competences of the Commission.

6. What are the regulations applying to procurement as regards the provision of digital technologies by private companies?

The Public Procurement Act foresees a set of rules and procedures for procurement of services of certain value, not necessarily linked to the fact that digital technologies are being procured.

The company owned by the State and the City of Zagreb handles the ICT systems used in the digitization of the voter registration process.

7. Are resources made available for the use of digital technologies adequate?

As mentioned above, the Commission is state financed, and the costs of IT services provider have to be planned in the budget.

The available resources fit the level of digitalisation used in elections. Any further digitalisation or use of new technologies during elections, especially at polling station, would require significant additional resources.

In the area of voter registration, the resources are now adequate. But there is need to upgrade the register to a new technological level. This will require more resources.

8. Would you find an added value in greater exchange of information/ guidance in this area, at international level?

The Commission is of the opinion that exchange of information and practices around the world is of significant importance and warmly welcomes any such initiative.

9. Is there any additional information that you would like to provide, in relation to any stage of the electoral cycle?

N/A

10. Additional specific aspects on which delegations may want to provide information:

- j. Does the EMB hire and involve personnel with a background in computer-science, engineering or a related field at drafting regulations, guidelines, contracts and procedures? What is their mission?

In the voter registration cycle the Ministry of Justice and Public Administration has personnel with engineering background. Their role is to be project leaders in the development of new ICT solutions, to cooperate in the drafting of regulations, guidelines and contracts. They are an interface between the operators developing ICT solutions and the business processes. They test the developed solutions and continuously adapt them to new technological or business requirements.

- k. How are the systems, the operational infrastructure as well as the operational and maintenance procedures scrutinized? Is public scrutiny supported for example by publishing the source code of custom software? What are the roles of the EMB and other organisations (e.g. organisations on lower levels of government) at enforcing compliance with security-sensitive requirements?

-

- l. Are there any system-independent procedures defined to verify the correctness of critical data held and computations performed by the systems in question (e.g. digitalised votes, counting, tabulation, election results; voter register)?

The national CERT is involved in the verification of parts of the IT system.

Regarding the voter registration cycle, all data in the voters register is completely transparent and all voters can access their data before and during the election process and verify the correctness.

CZECH REPUBLIC

QUESTIONNAIRE

When examining your replies, the Secretariat of the CDDG may need to contact you for further enquiries or clarifications. To that end, we would appreciate that you provide your contact details:

Author of the reply

- Country: **The Czech Republic**
- Organisation / Election Management Body (EMB): **Ministry of Interior, Election Department (in co-operation with the Czech Statistical Office)**
- Name: **Silvia Balážová**
- Position / Function: **Deputy Head of the Legal and Methodological Election Management Unit**
- E-mail: **silvia.balazova@gmail.cz**
- Phone number: **+420 974 817 370**

Questions

1. In which stages of the electoral cycle are digital technologies used (see the attached paper by Ms Ardita Driza Maurer)? What kind of digital technologies are used? Does the use of digital technologies in the electoral cycle follow an overall digitisation strategy?

Electoral technologies are, in a different extent, used in the Czech Republic, of course, in all phases of the electoral cycle. Everywhere, however, they are a means of support (apart from processing the election results) and are not able to fundamentally jeopardize the regularity of the elections.

Digital technologies are mainly used in the phase of compiling minutes with voting results by district election commissions ("Voting operations" phase) and in the phase of transferring the obtained data from district election commissions to the central database and subsequent calculation and presentation of election results ("Election results" phase). The principles of impartiality, transparency and security are respected.

District election commissions may use a computer election program, which has a built-in system of interactive mathematical-logical checks and draw the commission's attention to a potentially incorrect information in the record, when compiling a record of the voting result (i.e. recording manually summed results) in the constituency.

In terms of processing election results, it is an electronic transfer of voting results from district election commissions to central processing. The district commissions will come to the Czech Statistical Office (CZSO) collection point with a signed record (and over 90% with the export of data with voting results from a computer program). After summing up the results for all constituencies, the election results will be ascertained (and the mandates will be divided) at the level of the central database and detailed records with the election results will be generated, including partial steps.

This is now a standard form of digital processing of election results (transmission of manually detected results in polling stations to the central state administration body, which summarizes the results, calculates the distribution of seats, publishes election results in the presentation system on the website and forwards the results for approval to the State Electoral Commission). The presentation system of election results also uses a cloud solution.

The laws do not allow the use of digital technology directly for the vote of the voter, both remotely (e.g. via the Internet) and directly in the polling station (voting machine). The votes are therefore cast in paper form and are counted manually by the individual district election commissions (no scanning technology is used).

- 2.** How are the following issues addressed in regulations, guidelines, contracts or internal procedures of or applicable to the Election Management Body (EMB) or their partner organisations:

Electoral procedures are regulated in individual electoral laws. The rules for the use of ICT technology then result from the individual fields of activity. With regard to the minimal use of ICT technology in the electoral process, no special legal regulations are adopted for the partial issues envisaged in letters a) to h).

- ff. Human rights-centred use of Information and Communication Technology (ICT) in the electoral field
- gg. Detailed requirements stemming from human rights are necessary to regulate the use of ICT in elections
- hh. Usability of ICT

The use of digital technologies is enabled by general electoral legislation. At the CZSO level, an up-to-date internal material "Technical project for collection, processing and presentation of election results" is created for each election and the internal material "Basic principles of safe use of technology for elections" is updated, which define the use of ICT and principles of computer work so that election processing was safe.

- ii. The interplay of data protection and requirements relating to the secrecy of the vote

Only summary data for individual constituencies are used to process the results of the elections in the center. The register of candidates, presented on the Internet as part of the processing, contains only data that are publicly stated on the ballot paper.

- jj. Transparency

Transparency is a basic principle ensuring the credibility of elections. According to the internal "Technical Project", the voting results are completely published in the presentation system on the Internet immediately after transfer to the central online database. Members of the district election commission can immediately verify their compliance with the signed records submitted at the CZSO checkpoint, and the public has the opportunity to monitor interim (and final) results up to the lowest territorial level (constituency). Election results are also provided to users in the form of open data suitable for machine processing and analytical purposes. At the same time, on the days of the elections, during the collection of voting results from the district election commissions, a system is also provided for the

continuous transmission of data to the media, which use them for their own presentations of the results.

kk. Cybersecurity issues, including risk strategies, protection measures, verification possibilities, and contingency planning

An internal "Technical Project" and other materials, including internal crisis scenarios, which determine the processing procedure in the event of non-standard situations, address Cyber security of election processing at the CZSO level. In matters of cyber security, the CZSO cooperates with relevant institutions (Ministry of Interior, National Cyber and Information Agency) as well as with service providers. Penetration tests are regularly carried out and processing tests are organized to verify the functionality and safety of all processes, especially digital technologies.

ll. Control, enforcement and accountability requirements

mm. Issues related to resources and to co-operation with the private sector should be addressed.

If so, provide details and comments (how are these issues regulated)?

3. Are there any plans to extend the use of digital technologies and, if yes, in which stages of the electoral cycle? Can you specify what type of technology is envisaged? And are there any plans for reviewing the relevant regulations or introducing new ones?

Yes. The Ministry of Interior (MoI) has prepared a new draft of a new electoral law, specifically the Act on Election Administration, which would have extensively digitized certain electoral administrative procedures. The law was submitted to the government and is awaiting discussion.

The law envisages the creation of an information system for election administration, as a part of the critical infrastructure, which should become a new, unified information background for administrative activities in election agendas. In addition, the public interface of the system will enable citizens' access to electronic filing and ensure that the general public is informed, including the publication of statutory documents at various stages of the electoral process.

The election management information system will include 4 main components:

1. Central list of voters - will replace today's approximately 6,500 partial voter lists kept by municipal authorities.
2. Register of candidate lists - the register will be built on the mandatory electronic form of the candidate list. It will facilitate the verification of candidate data and simplify communication between candidates and registration authorities.
3. Register of district election commissions - this tool will in particular allow electoral parties to delegate their representatives to district election commissions online electronically.
4. ePetition tool - enables online creation and support of electronic petitions for independent candidates using a guaranteed electronic identity. This possibility will exist in parallel with the possibility of submitting a paper petition.

The Election Administration Act further regulates the conditions for testing machine counting of votes. It should be noted that this is not an electronic vote. The voter casts

his / her vote on a paper ballot paper, which is then counted electronically by the district commission thanks to a special scanning device. The aim is to reduce the error rate in counting votes.

The CZSO supports the dissemination of digital technologies planned by the Ministry of the Interior of the Czech Republic in connection with the preparation of a register of candidates and candidate lists, which could be created electronically at the submission stage directly by political entities. With the help of digital technologies, it would be possible to take over the aggregated numbers of voters in the districts. Everything is conditioned by a change in the electoral legislation, which has already been prepared by the MoI and which has been submitted to the government. In the future, the possibilities of scanning and automatic evaluation are also considered, but in addition to the legislation to be solved, there is also financial costs, changes in organizational arrangements and, in particular, the precise determination of competencies.

4. Have any significant difficulties arisen from the use of digital technologies in specific stages of the electoral cycle in the past? How were these difficulties resolved?

Electoral processes in the Czech Republic are largely not based on digital technologies. An exception is the process of processing election results (except for the actual counting of votes, which is carried out physically by district election commissions). No significant problems were reported to the MoI.

In the CZSO's practice, however, such an example has occurred in the recent past – during the processing of the elections to the Chamber of Deputies in 2017, there was a targeted DDoS attack on the infrastructure of an external supplier used to ensure the presentation of election results. The result was a temporarily limited availability of the website (the processing of the results was not affected in any way). One of the measures used after 2017 is the strengthening of the presentation system with redundancy and a cloud solution. The use of technology has proven itself; presentation systems are more durable. There was also a further strengthening in the area of continuous transmission of data to the media and other entities (open data) so that the data can reach the public in parallel through multiple channels.

5. Has the COVID-19 pandemic had an impact in the field of elections? For instance, has it given rise to a public debate on the organisation of elections in general or as regards the introduction of new technologies in elections? Have changes in the electoral system been introduced to ensure the organization of elections during the pandemic? If yes, were these changes introduced considered effective?

Yes, the COVID-19 pandemic affected the elections and required legislation.

Under all electoral laws, restrictions on freedom to protect public health are an obstacle to the right to vote. This year, however, it has been the subject of legitimate criticism for its unprecedented quantitative implications for regional and Senate elections in October 2020. While in the past the obstacle to the exercise of the right to vote concerned only a dozen cases, COVID-19 has affected thousands of voters.

Due to the fact that the laws do not allow remote voting (electronically or by post), and taking into account the above, Act No. 350/2020 Coll. Was adopted in August, on the basis of which voters in quarantine or in isolation were allowed to vote:

- from a motor vehicle at a polling station (so-called drive-in voting);
- in a residential social services facility which has been closed to a sanitary station;
- to a special portable ballot box.

Special voting commissions composed of the record-keeper and members of the Czech Army, who were equipped with anti-epidemic protective tools, ensured voting.

The public and political actors welcomed special voting methods and no significant complaints were resolved. They were perceived as effective and sufficient for the elections.

The voting in person in the polling station was also adapted to the current situation:

- all voters were obliged to have covered their noses and mouths (this resulted from the general regulation to wear veils in the interior of buildings)
- commissions were equipped with disinfectants
- regular ventilation and disinfection of polling stations
- keeping sufficient distance etc.

It should be noted that no measures introduced new digital technologies. The use of technology, for example for voting, was rejected at the outset, mainly due to the short time needed to prepare for the elections.

Following the newly adopted law on special voting methods (for voters in quarantine or isolation), the CZSO extended the code lists to include fictitious districts for aggregating results from special voting methods and also for electronic form of acceptance of voting results and their subsequent distribution to appropriate collection points. Thus, the Counting Commission physically completed only one trip with the results of voting from special voting methods, usually to the nearest pick-up point, from where the necessary inputs were sent via a secure transmission network to the territorially relevant pick-up points, where they were processed. Immediately afterwards, documents were sent to the Counting Commission certifying that the results of the special voting methods had been flawlessly taken over into processing. The introduced change can be considered effective as it has significantly simplified the transmission of results to the census commissions. However, it was not in fact a technological novelty, as a similar system of electronic acceptance is used to process special constituencies from abroad in the elections to the Chamber of Deputies and the election of the President.

6. What are the regulations applying to procurement as regards the provision of digital technologies by private companies?

The Election Department deals with digital technologies provided by private companies in only one case, namely the electronic control of petition sheets of independent candidates in the election of the President of the Republic (if an independent candidate wants to run in the election, at least 50,000 voters need support).

However, the public contract is covered by the Public Procurement Department of the Ministry of the Interior. Legal regulations consist mainly of Act No. 134/2016 Coll., on Public Procurement, and internal Regulation of the Ministry of the Interior No. 27/2019 covering this area.

Also the CZSO's has its internal regulations for public procurement matters. There must be strict tenders and the suppliers selected by the competition are bound by a promise of confidentiality. To ensure cyber security, it is necessary to follow the recommendations issued by the National Cyber and Information Security Agency.

7. Are resources made available for the use of digital technologies adequate?

From the CZSO's point of view, the allocated funds for ensuring the processing of elections enable the use of digital technologies. They also enable their development, but larger investment projects and sophisticated solutions are expensive and conditioned by current legislation.

8. Would you find an added value in greater exchange of information/ guidance in this area, at international level?

We welcome any specific information regarding the use of digital technologies in electoral processes at the international level.

A standardized digital platform for transmitting the results of elections to the European Parliament could be considered from the point of view of the CZSO.

9. Is there any additional information that you would like to provide, in relation to any stage of the electoral cycle?

10. Additional specific aspects on which delegations may want to provide information:

- m. Does the EMB hire and involve personnel with a background in computer-science, engineering or a related field at drafting regulations, guidelines, contracts and procedures? What is their mission?

The MoI Election Department cooperates only with other MoI departments or other administrative bodies in the preparation of instructions.

In the preparation of the new law and the information system for election administration (see point 3), cooperation was established with all key departments and ministries, including in the areas providing digital technologies. However, cooperation was always only with administrative authorities.

As for the CZSO, both the Office's own IT staff and IT specialists from external companies are involved in the preparation and processing process. They are mainly involved in solving technical issues of collection and processing of election data (ensuring the security of the transmission network, configuration of technology for central processing, upgrade of CZSO software). These employees are also involved in the creation of the "Technical Processing Project and the Presentation of Election Results", where the technical parameters and processing procedures are determined.

- n. How are the systems, the operational infrastructure as well as the operational and maintenance procedures scrutinized? Is public scrutiny supported for example by publishing the source code of custom software? What are the roles of the EMB and other organisations (e.g. organisations on lower levels of government) at enforcing compliance with security-sensitive requirements?

The CZSO ensures the implementation of several security and penetration tests, which examine the security of the network for election processing, network endpoints (processing laptops located at CZSO pick-up points), central processing and web presentation of election results. State and commercial entities dealing with cyber security have been participating in the tests for a long time. The source code of the CZSO's own software (district election program, central computer system) is not published. The source codes are stored in the internal VCS (version control system) and can be checked retrospectively if necessary.

- o. Are there any system-independent procedures defined to verify the correctness of critical data held and computations performed by the systems in question (e.g. digitalised votes, counting, tabulation, election results; voter register)?

Agendas under the MoI Election Department do not require the retention of critical data and do not provide technically relevant systems.

Concerning the CZSO, the verification of the correctness of the calculation of election results and the allocation of seats takes place internally and the distribution of seats is also verified in parallel outside the central computer system. At the constituency level, the voting results determined by the commissions are checked by the constituency election program, or by the acquisition program at the CZSO pick-up point (mathematical checks and logical links between data). The entire system of acquisition and transmission of voting results is encrypted and electronically documented by a sophisticated system of control numbers using current methods and procedures. Thanks to the publication of all data in the form of open data (results up to the lowest possible level, i.e. for individual constituencies, including the register of candidates), the election results can be independently checked. The real processing of voting results is preceded by several tests.

ESTONIA

QUESTIONNAIRE

When examining your replies, the Secretariat of the CDDG may need to contact you for further enquiries or clarifications. To that end, we would appreciate that you provide your contact details:

Author of the reply

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Questions

1. In which stages of the electoral cycle are digital technologies used (see the attached paper by Ms Ardita Driza Maurer)? What kind of digital technologies are used? Does the use of digital technologies in the electoral cycle follow an overall digitisation strategy?

4) registration of voters and nomination of parties and candidates (all digital electors' management and paperless candidate nomination process) System is Election Information Service (EIS)

6) voting operations (both in voter management in polling stations and remote electronic voting) Systems are EIS and (remote) Electronic Voting System (EVS)

7) election results all presented digitally. System is EIS.

8) post-election duties (all electronic voting procedures). System is EVS.

2. How are the following issues addressed in regulations, guidelines, contracts or internal procedures of or applicable to the Election Management Body (EMB) or their partner organisations:

nn. Human rights-centred use of Information and Communication Technology (ICT) in the electoral field

Basic requirements come from general HR regulations in the constitution and relevant general proceedings, nothing more specific.

oo. Detailed requirements stemming from human rights are necessary to regulate the use of ICT in elections

Same as above, nothing specific in the detailed provisions, but all general applicable HR requirements are applied.

pp. Usability of ICT

Yes, is regulated in [electoral law](#) and in detailed technical documents. Has strong links to the principle of universal elections.

qq. The interplay of data protection and requirements relating to the secrecy of the vote

All main principles are dependant of GDPR, and relevant national legal acts apply, but vote security has specific provisions in the election acts.

rr. Transparency

Yes, has requirements in the law and in the relevant technical documents. Has links to verifiability, accountability of data and auditing.

ss. Cybersecurity issues, including risk strategies, protection measures, verification possibilities, and contingency planning

Verification requirements are in the law, more specifically in lower-level acts (e.g., National Electoral Committee acts and State Electoral Office instructions. Cybersec provisions, risk strategies, contingency measures and contingency planning all are State Electoral Office level acts (instructions, manuals, misc documents)

tt. Control, enforcement and accountability requirements

Main regulation is stemming from the election acts, but oversight is relayed to the National Electoral Office which has additional possibilities to regulate the concrete steps. Technical oversight is with the State Electoral Office and its technical regulation.

uu. Issues related to resources and to co-operation with the private sector should be addressed.

If so, provide details and comments (how are these issues regulated)?

No election-specific regulation on private sector cooperation. In case there is private sector involvement in the technical process (e.g., the e-voting organization), it will be regulated by National Electoral Office decisions.

- 3.** Are there any plans to extend the use of digital technologies and, if yes, in which stages of the electoral cycle? Can you specify what type of technology is envisaged? And are there any plans for reviewing the relevant regulations or introducing new ones?

Beginning of 2021 a new generation of electronic voting management solutions were introduced – electronic eligible voters' and polling station voters' lists, electronic candidate nomination and registration functions. Remote electronic voting solutions undergo regular security updates and research into enhanced verifiability in ongoing.

- 4.** Have any significant difficulties arisen from the use of digital technologies in specific stages of the electoral cycle in the past? How were these difficulties resolved?

Nothing specific, using digital solution is a well-versed logic in the Estonian governance system. There is an underlying ecosystem for implementing innovative solutions in the field of elections. Main priority must be cybersecurity risk mitigation and guaranteed availability. The identification of users is backed by a universal governmental eID solution.

- 5.** Has the COVID-19 pandemic had an impact in the field of elections? For instance, has it given rise to a public debate on the organisation of elections in general or as regards the introduction of new technologies in elections? Have changes in the electoral system been introduced to ensure the organization of elections during the pandemic? If yes, were these changes introduced considered effective?

No experiences with general elections during COVID yet but planning for this occurrence is relevant and has been incorporated into the risk mitigation strategies.

- 6.** What are the regulations applying to procurement as regards the provision of digital technologies by private companies?

No specific regulation regarding elections, general procurement regulations apply

- 7.** Are resources made available for the use of digital technologies adequate?

The resources are adequate for using already existent technologies. Procurement of new solutions or significantly updating existent solutions would provide for a challenge.

- 8.** Would you find an added value in greater exchange of information/ guidance in this area, at international level?

Absolutely

- 9.** Is there any additional information that you would like to provide, in relation to any stage of the electoral cycle?

No

- 10.** Additional specific aspects on which delegations may want to provide information:

- p. Does the EMB hire and involve personnel with a background in computer-science, engineering or a related field at drafting regulations, guidelines, contracts and procedures? What is their mission?

Yes, there is a permanent technical group present at the EMB to provide necessary input on the technical needs and requirements (in addition to a tight cooperation with relevant state level actors in the ministries/government).

- q. How are the systems, the operational infrastructure as well as the operational and maintenance procedures scrutinized? Is public scrutiny supported for example by publishing the source code of custom software? What are the roles of the EMB and other organisations (e.g. organisations on lower levels of government) at enforcing compliance with security-sensitive requirements?

Relevant source code is public, timely and consistent testing efforts are performed and made public, technical and procedural manuals and documents are made public, observation programs are offered during the actual use of systems. The main actor is the EMB but transparency and accountability are a larger effort by different additional state authorities (e.g., the Information System Authority or the Ministry of Economic Affairs and Communications).

- r. Are there any system-independent procedures defined to verify the correctness of critical data held and computations performed by the systems in question (e.g. digitalised votes, counting, tabulation, election results; voter register)?

Yes, data audit (to provide universal verifiability) is provided for electronic voting and individual verifiability is provided for the e-voters (to provide cast-as-intended verifiability).

FINLAND

QUESTIONNAIRE

When examining your replies, the Secretariat of the CDDG may need to contact you for further enquiries or clarifications. To that end, we would appreciate that you provide your contact details:

Author of the reply

- Country: Finland
- Organisation / Election Management Body (EMB): Ministry of Justice
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- Position / Function: Ministerial Adviser
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- Phone number: +358503800239

Questions

- 1.** In which stages of the electoral cycle are digital technologies used (see the attached paper by Ms Ardita Driza Maurer)? What kind of digital technologies are used? Does the use of digital technologies in the electoral cycle follow an overall digitisation strategy?

- Planning and preparation
- Registration of voters and political parties
- Electoral campaigning
- Voting operations: Tabulation of results
- Election Result announcement

Most of the digital operations are handled with a centralized IT system (Election information system, EIS) owned by the MoJ. Also Population Register related services are in use. All development of digital technologies follow overall digitisation strategies by the Government but recently a vision for development of EIS was also introduced.

- 2.** How are the following issues addressed in regulations, guidelines, contracts or internal procedures of or applicable to the Election Management Body (EMB) or their partner organisations:

- vv. Human rights-centred use of Information and Communication Technology (ICT) in the electoral field
- ww. Detailed requirements stemming from human rights are necessary to regulate the use of ICT in elections
- xx. Usability of ICT
- yy. The interplay of data protection and requirements relating to the secrecy of the vote
- zz. Transparency

- aaa. Cybersecurity issues, including risk strategies, protection measures, verification possibilities, and contingency planning
- bbb. Control, enforcement and accountability requirements
- ccc. Issues related to resources and to co-operation with the private sector should be addressed.

If so, provide details and comments (how are these issues regulated)?

-

- 3.** Are there any plans to extend the use of digital technologies and, if yes, in which stages of the electoral cycle? Can you specify what type of technology is envisaged? And are there any plans for reviewing the relevant regulations or introducing new ones?

- There is a vision and a tentative plan to develop EIS and to introduce new features. For example, use of digital candidate applications. In more detailed planning of renewed EIS different new technologies are under consideration.
- As of 1 January 2021 it will be possible to collect signatures of support for party applications online using e-identification.

- 4.** Have any significant difficulties arisen from the use of digital technologies in specific stages of the electoral cycle in the past? How were these difficulties resolved?

- 2008 a trial of e-voting in municipal elections led to appeals and a new election, after which e-voting was ended.

- 5.** Has the COVID-19 pandemic had an impact in the field of elections? For instance, has it given rise to a public debate on the organisation of elections in general or as regards the introduction of new technologies in elections? Have changes in the electoral system been introduced to ensure the organization of elections during the pandemic? If yes, were these changes introduced considered effective?

- Finland didn't have any general elections in 2020. However, COVID-19 pandemic has had impact on preparations ahead of April 2021 municipal elections. No amendments to the electoral system, IT system or legislation have been made.

- 6.** What are the regulations applying to procurement as regards the provision of digital technologies by private companies?

- The Constitution of Finland section 124 states the following: A public administrative task may be delegated to others than public authorities only by an Act or by virtue of an Act, if this is necessary for the appropriate performance of the task and if basic rights and liberties, legal remedies and other requirements of good governance are not endangered. However, a task involving significant exercise of public powers can only be delegated to public authorities. This sets limits to procurement to private companies.

- 7.** Are resources made available for the use of digital technologies adequate?

- Yes, at least at the moment.

- 8.** Would you find an added value in greater exchange of information/ guidance in this area, at international level?

- Yes, especially concerning developing technologies and their application in practice.

9. Is there any additional information that you would like to provide, in relation to any stage of the electoral cycle?

- Use of new technologies was widely studied in Election Information System – A Lifecycle Study earlier this year: <https://julkaisut.valtioneuvosto.fi/handle/10024/162263>

10. Additional specific aspects on which delegations may want to provide information:

s. Does the EMB hire and involve personnel with a background in computer-science, engineering or a related field at drafting regulations, guidelines, contracts and procedures? What is their mission?

- Yes, in all policy making relating elections also IT background colleagues are involved.

t. How are the systems, the operational infrastructure as well as the operational and maintenance procedures scrutinized? Is public scrutiny supported for example by publishing the source code of custom software? What are the roles of the EMB and other organisations (e.g. organisations on lower levels of government) at enforcing compliance with security-sensitive requirements?

- System is audited by an external auditor. Source code of software is not published but more transparency is planned for the future.

u. Are there any system-independent procedures defined to verify the correctness of critical data held and computations performed by the systems in question (e.g. digitalised votes, counting, tabulation, election results; voter register)?

- The official elections results can be counted from paper documents in principal.

HUNGARY

QUESTIONNAIRE

When examining your replies, the Secretariat of the CDDG may need to contact you for further enquiries or clarifications. To that end, we would appreciate that you provide your contact details:

Author of the reply

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- Organisation / Election Management Body (EMB): [National Election Office \(NEO\)](#)
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- Phone number: [+36 70/ 680 95 60](#)

Questions

1. In which stages of the electoral cycle are digital technologies used (see the attached paper by Ms Ardita Driza Maurer)? What kind of digital technologies are used? Does the use of digital technologies in the electoral cycle follow an overall digitisation strategy?

[During the whole electoral cycle we use digital technologies, from the day when the date of the election is fixed to the moment when the final result is made public. It is a priority that every data of public interest produced during the electoral process has to be stored in a digitalized form as well. We continuously keep the voters' list updated electronically as well as the constituencies; those entitled to vote at elections where registration is necessary have the possibility to register electronically as well; other requests by citizens \(requests for voting in another polling district than that of their address, requests for mobile ballot box, requests for voting at a foreign diplomatic representation etc.\) can be submitted electronically, the national election office adjudging and informing the citizens via its information system. We can say that every act in the electoral process is stored electronically with the difference of the vote being based on paper ballots and secret.](#)

2. How are the following issues addressed in regulations, guidelines, contracts or internal procedures of or applicable to the Election Management Body (EMB) or their partner organisations:

- ddd. Human rights-centred use of Information and Communication Technology (ICT) in the electoral field
- eee. Detailed requirements stemming from human rights are necessary to regulate the use of ICT in elections
- fff. Usability of ICT
- ggg. The interplay of data protection and requirements relating to the secrecy of the vote
- hhh. Transparency

- iii. Cybersecurity issues, including risk strategies, protection measures, verification possibilities, and contingency planning
- jjj. Control, enforcement and accountability requirements
- kkk. Issues related to resources and to co-operation with the private sector should be addressed.

If so, provide details and comments (how are these issues regulated)?

Human rights are regulated by the law in Hungary - we bear that in mind, so during the whole electoral process these are guaranteed for the citizens, candidates and nominating organizations. As to the protection of data, we enforce the provisions of GDPR meaning that no one outside the members of the national election office has access to personal data. Members of the national election office have access insofar as it is necessary for their work. When we develop electronic systems, we especially focus on all that. NEO Hungary uses the highest level cybersecurity services, ensuring by that the fairness of elections.

- 3.** Are there any plans to extend the use of digital technologies and, if yes, in which stages of the electoral cycle? Can you specify what type of technology is envisaged? And are there any plans for reviewing the relevant regulations or introducing new ones?

In addition to the already existing requests based on paper and which serve to initiate certain official acts as part of the electoral process (e.g. notification of nominating organizations and candidates, request for recommendation sheets, verification of recommendations made by the citizens etc.), we are planning to make these available for nominating organizations, candidates, voters in electronic format. There are also plans to support all official acts involved by the electoral process - except for the vote itself, which based on paper ballots - through the electronic system so they could be done electronically. However, those plans are hindered by the law, therefore we need the will of legislators to overcome the current legal obstacles.

- 4.** Have any significant difficulties arisen from the use of digital technologies in specific stages of the electoral cycle in the past? How were these difficulties resolved?

At the 2014 parliamentary election, any citizen could go to a polling district other than that of their address - the polling district of their temporary residence - and vote there for the candidate of their address. Requesting re-registering in the electoral list of their temporary residence was possible electronically until the 2nd day before voting day. But, due to the great number of requests, the system was slow or not operational. With the aim of remedying this situation, a new legislation provided that the 4th day before voting day would be the deadline for submitting such requests. In the same time, NEO increased its capabilities in order to avoid the technical problems mentioned above, and, indeed, at the next general elections, in 2018, this problem did not occur anymore.

- 5.** Has the COVID-19 pandemic had an impact in the field of elections? For instance, has it given rise to a public debate on the organisation of elections in general or as regards the introduction of new technologies in elections? Have changes in the electoral system been introduced to ensure the organization of elections during the pandemic? If yes, were these changes introduced considered effective?

For the time the pandemic lasts, the Hungarian Government declared the state of emergency, implying, among other things, that no by-elections could be held. Holding elections will be possible once the state of emergency ends. Holding national elections in this period was not appropriate.

The Ministry of Justice also provided a complement to this question:

According to the Article 16 of Act CLXVII of 2020 on Amending Certain Electoral Acts, a meeting of the National Electoral Commission may also be held by electronic communication devices, based on the decision of the Chairman.

This amendment will enter into force on 21st of January 2021.

- 6.** What are the regulations applying to procurement as regards the provision of digital technologies by private companies?

Act on Procurements applies in this case.

- 7.** Are resources made available for the use of digital technologies adequate?
NEO has its own range of digital technology tools, and this can be extended at any moment depending on NEO's budget.

- 8.** Would you find an added value in greater exchange of information/ guidance in this area, at international level?

The National Election Office is actively collaborating with the Romanian and Austrian election management bodies, we continuously share good practices and ideas and we take solutions that have already been applied from each other.

- 9.** Is there any additional information that you would like to provide, in relation to any stage of the electoral cycle?

In Hungary, voters still don't trust electronic voting - there isn't enough trust in IT technologies supporting it; this means that we still cannot envisage the replacement of paper based voting. On the other hand, any other official act initiated by both citizens or candidates can be digitalized.

- 10.** Additional specific aspects on which delegations may want to provide information:

- v. Does the EMB hire and involve personnel with a background in computer-science, engineering or a related field at drafting regulations, guidelines, contracts and procedures? What is their mission?

NEO manages the internal regulation on its own. But we do turn to IT experts when it comes to prepare procedures for cybersecurity events.

- w. How are the systems, the operational infrastructure as well as the operational and maintenance procedures scrutinized? Is public scrutiny supported for example by publishing the source code of custom software? What are the roles of the EMB and other organisations (e.g. organisations on lower levels of government) at enforcing compliance with security-sensitive requirements?

It is the National Institute for Cybersecurity (Nemzeti Kibervédelmi Intézet) - a public authority - that controls the systems from a security point of view. Source codes are not made public.

- x. Are there any system-independent procedures defined to verify the correctness of critical data held and computations performed by the systems in question (e.g. digitalised votes, counting, tabulation, election results; voter register)?

The data of records containing the results get manually put in the information system totalizing the ballots, then the records get scanned, and the data get, once again - via optical character recognition -, fed into another system (independent of the one totalizing the ballots) performing verification. If the data do not correlate, the latter systems signals it.

LATVIA

QUESTIONNAIRE

When examining your replies, the Secretariat of the CDDG may need to contact you for further enquiries or clarifications. To that end, we would appreciate that you provide your contact details:

Author of the reply

- Country: **Latvia**
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- Phone number: **+371 67322688**

Questions

1. In which stages of the electoral cycle are digital technologies used (see the attached paper by Ms Ardita Driza Maurer)? What kind of digital technologies are used? Does the use of digital technologies in the electoral cycle follow an overall digitisation strategy?

In Latvia, digital technologies are used in the following stages of the electoral cycle:

- Legal framework: in the emergency situation to restrict the spread of Covid-19, the CEC meetings are remote, conducted online through video conferencing;
- Planning and preparation: e-training course for members of election commissions, training seminars through video conferencing;
- Training and education: e-training course for election observers;
- Registration of voters, candidates, observers:
 - the electronic voter register is used in elections. For the first time in the municipal elections of 2021, it is planned to introduce and use the electronic voter register online for voter registration in polling stations;
 - voters have the possibility to register electronically for postal voting, can electronically change the constituency or polling station;
 - observers may register for elections and receive an authorisation by electronic means;
 - a specific application programme is used to prepare, submit, publish the candidate lists. The information about candidates entered in the application is also used to verify the right of a person to stand as a candidate in a particular constituency. The application is used to generate layouts of ballot papers, too.
- Electoral campaigning: Election information has been sent in addition to those voters who have registered an official e-address for communication with the state. A mobile application is developed, which allows citizens to report illegal advertising or misuse of administrative resources.

- Voting operations:

- In the 2021 municipal elections, for the first time the online electronic voter register will be used in polling stations for voter registration and ensuring the principle of "one person – one vote". It is planned to scan voter identity documents (passport or eID) using a smart device (smartphone or tablet) at polling stations. Thus, the smart device will read the voter's personal identity number, the voter will be found on the online electronic voter list, checking whether or not the voter has the right to vote in the particular polling area, and mark about the voter's participation in the elections will be made.
- An electronic journal of the voting process is used in polling stations.
- Voters can submit applications regarding the organisation of a vote at the voter's location or application for postal voting electronically – through the national portal Latvija.lv or by e-mail, if the voter has the possibility to sign the application by secure e-signature.
- Scanners and an application programme are used for vote counting that allows to count votes for candidate lists and candidates.
- It is possible to sign up for voters' legislative initiatives or to initiate a referendum for the recalling of parliament electronically on the national portal Latvija.lv; voters' signatures submitted on the portal Latvija.lv and in the municipalities are registered in the electronic system of collecting signatures, the system is used to verify the voting rights of a person in order to keep count of signatories and to ensure the principle of "one person – one vote".

- Election results: election results are collected electronically using the application programme, they are published on the internet at the election night, an application is used to calculate election results.

No. There is no overall digital strategy in Latvia. New IT projects in the electoral field are introduced if proposed by the parliament or the CEC.

- 2.** How are the following issues addressed in regulations, guidelines, contracts or internal procedures of or applicable to the Election Management Body (EMB) or their partner organisations:

III. Human rights-centred use of Information and Communication Technology (ICT) in the electoral field

mmm. Detailed requirements stemming from human rights are necessary to regulate the use of ICT in elections

nnn. Usability of ICT

ooo. The interplay of data protection and requirements relating to the secrecy of the vote

ppp. Transparency

qqq. Cybersecurity issues, including risk strategies, protection measures, verification possibilities, and contingency planning

rrr. Control, enforcement and accountability requirements

sss. Issues related to resources and to co-operation with the private sector should be addressed.

If so, provide details and comments (how are these issues regulated)?

All these issues are substantive. Since 2018, the status of critical infrastructure has been applied to information systems used in the elections in Latvia. Consequently, the development and use of information technologies in elections must comply with national legislation governing this area. The CEC shall also prepare the security policy documents necessary to maintain the systems. In addition, the provisions of the General Data Protection Regulation are applied to personal data collected in electoral information systems. Cyber security of electoral systems is assessed and protected by the national authorities responsible for this area.

- 3.** Are there any plans to extend the use of digital technologies and, if yes, in which stages of the electoral cycle? Can you specify what type of technology is envisaged? And are there any plans for reviewing the relevant regulations or introducing new ones?

Yes, in the following stages: Planning and preparation, training and education, registration, voting operations.

In the 2021 municipal elections, an online electronic voter register will be used in polling stations, a scanning of voter documents will be introduced using smart devices (smartphone, tablet). Similarly, such register and scanning of voter documents is scheduled to be introduced in the forthcoming parliamentary elections of 2022.

The Saeima (parliament) also discusses the possibility of Internet voting in municipal referendums.

Amendments to the municipal election law and the Electoral Register Law, which provides for an online electronic voter register in polling stations, have already been adopted in June 2020. The respective amendments to the Saeima Election Law are in the process of development and harmonisation.

In the 2021 municipal elections, voters will be able to apply electronically for postal voting for the first time, and materials for postal voting will be sent to voters electronically.

In the future, if it is possible to attract a respective financing, the process of submitting different kinds of applications could also be digitised, for example, in order to apply for work in the municipal or polling station election commission, to apply for voting at the voter location, as well for the internal circulation of election commissions' documents. It is also planned to set up a training portal for election commission, observer, as well the portal for postal voting could be developed, where applications could be submitted, processed and materials sent.

- 4.** Have any significant difficulties arisen from the use of digital technologies in specific stages of the electoral cycle in the past? How were these difficulties resolved?

Yes, they have. In the 2019 EP elections, the e-service for voter data exchange was found to be malfunctioning, it was quickly rectified, the situation analysed. The findings were that such a situation occurred because the e-service was introduced in very short terms, a few months, and there was no way to test it properly. Main conclusions from this experience: (1) In the future, in order to avoid such situations, electoral IT systems should be transferred to the production environment at least three to six months before the elections in order to allow them to be adequately tested; (2) regular and direct cooperation between the CEC, the system developer and the security authorities is necessary in the process of planning and developing electoral systems.

- 5.** Has the COVID-19 pandemic had an impact in the field of elections? For instance, has it given rise to a public debate on the organisation of elections in general or as regards the introduction of new technologies in elections? Have changes in the electoral system been introduced to ensure the organization of elections during the pandemic? If yes, were these changes introduced considered effective?

Yes, the discussions took place. The main issues were the introduction of in-country postal voting and the possibility to apply electronically for a vote in the voter location. In the meantime, no new voting solutions have been introduced due to the Covid-19 pandemic, except – the emergency elections of the Riga City Council have changed the order how voters can apply to vote in their location, if the health reasons make it impossible to vote in the polling station. The possibility of submitting an application in person at the polling station was replaced by submitting an application to the municipal election commission by post, e-mail (if the voter has the possibility to sign the application by secure e-signature) or electronically on the state portal Latvija.lv.

- 6.** What are the regulations applying to procurement as regards the provision of digital technologies by private companies?

Procurement in Latvia is governed by a special law – Public Procurement Law. As regards the use of digital technologies in the elections, no exception rules exist. The applicable procurement conditions and terms must be respected.

- 7.** Are resources made available for the use of digital technologies adequate?

No, they are not enough. The lack of relevant IT specialists on the CEC staff is also a major problem.

- 8.** Would you find an added value in greater exchange of information/ guidance in this area, at international level?

Yes, such an exchange of experience would be helpful.

- 9.** Is there any additional information that you would like to provide, in relation to any stage of the electoral cycle?

No.

- 10.** Additional specific aspects on which delegations may want to provide information:

- y. Does the EMB hire and involve personnel with a background in computer-science, engineering or a related field at drafting regulations, guidelines, contracts and procedures? What is their mission?
- z. How are the systems, the operational infrastructure as well as the operational and maintenance procedures scrutinized? Is public scrutiny supported for example by publishing the source code of custom software? What are the roles of the EMB and other organisations (e.g. organisations on lower levels of government) at enforcing compliance with security-sensitive requirements?
- aa. Are there any system-independent procedures defined to verify the correctness of critical data held and computations performed by the systems in question (e.g. digitalised votes, counting, tabulation, election results; voter register)?

- a. Yes, the CEC do it, but because of limited resources, there is no way to involve experts in these areas as widely and to what extent it would be necessary.
- b. The information systems used in the election are scrutinized by law enforcement authorities, as well as an independent security audit is ordered.
- c. No, there aren't. The electoral results may be contested by candidates and submitters of candidate lists in the CEC or the Court. If the complaint is legitimate, the CEC or the court may obligate the recount of electoral results. It should be noted that the voting process has not been digitised in Latvia, voting is held by ballot papers, so that, in cases of dispute, the results of the elections can be recounted manually.

**LITHUANIA
(Venice Commission)**

QUESTIONNAIRE

When examining your replies, the Secretariat of the CDDG may need to contact you for further enquiries or clarifications. To that end, we would appreciate that you provide your contact details:

Author of the reply

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Questions

1. In which stages of the electoral cycle are digital technologies used (see the attached paper by Ms Ardita Driza Maurer)? What kind of digital technologies are used? Does the use of digital technologies in the electoral cycle follow an overall digitisation strategy?

Answer:

Digital technologies are used in all stages of the electoral cycle except Legal framework. EMB has its own information system that guaranties digitization of election process.

The purpose of the System:

- 1) *Collect and manage data and documents of:*
 - a) *Voters*
 - b) *Candidates*
 - c) *Election Commissions*
 - d) *Voting Results*
 - e) *Accounting*
 - f) *Political Party Financing*
- 2) *Deliver e-services to voters, election participants and organizers*
- 3) *Publish election data*

Information system consists of these subsystems:

- 1) *Voters lists management subsystem – the management of voters lists at all levels of election commissions.*
On election day: electronic data exchange among polling stations, ensuring the possibility for voters to vote at any polling station of the same constituency
- 2) *The organization of elections subsystem - the management of election organization and control processes such as:*

- a. registers of elections, parties, members of commissions, observers, representatives, candidates,
 - b. seat allocation of members of parliament and municipal councils.
- 3) *Election day data transmission subsystem (The Wizard of Election Day):*
- a. transmission of final voting results from the manual counting at polling stations directly for published on website of CEC.
 - b. identifying arithmetical errors of counting
- 4) *Political parties and political campaign financing control subsystem - the management of political campaign, political party financing and funding of monitoring information management processes.*
- 5) *Electronic public services subsystem (Portal VOTER PAGE) - provides electronic services for voters and candidates such as:*
- a. to find and to change their polling station
 - b. to apply for postal voting
 - c. to register for voting abroad
 - d. signature collection for candidates and parties
 - e. signature collection for national referenda
 - f. the electronic journal with all important figures and events
 - g. History of individual participation in election (where and when he/she voted or his donation to a certain candidate);
 - h. User relevant election schedule events and reminders;
 - i. Actual and historical election data, reports on various aspects: election results, information on candidates, political campaigns finance data, etc.;
 - j. The map of boundaries of electoral districts;
 - k. All e-services in one-stop shop: the submission of e-documents and receipts, signatures collected for a nominated candidate, etc.
- 6) *Data publishing subsystem - subsystem for publishing information about elections, referendums, their progress and results.*
- 7) *Estimates, payroll and accounting subsystem - the management of personnel and payroll administration, and local / regional accounting.*
- 8) *Administration subsystem - the management of user rights, parameters of subsystems, jobs generation (create voters list, generate candidate data for publishing and others), administration of the electronic journal of election*
- 9) *Training Subsystem (NEW) - training and certification of voters, election observers, members of polling station commissions*
- 10) *Complaints and Notifications Subsystem (NEW) – submission and administration of complaints at all level of commissions.*
2. How are the following issues addressed in regulations, guidelines, contracts or internal procedures of or applicable to the Election Management Body (EMB) or their partner organisations:

ttt. Human rights-centred use of Information and Communication Technology (ICT) in the electoral field

uuu. Detailed requirements stemming from human rights are necessary to regulate the use of ICT in elections

vvv. Usability of ICT

www. The interplay of data protection and requirements relating to the secrecy of the vote

- xxx. Transparency
- yyy. Cybersecurity issues, including risk strategies, protection measures, verification possibilities, and contingency planning
- zzz. Control, enforcement and accountability requirements
- aaaa. Issues related to resources and to co-operation with the private sector should be addressed.

If so, provide details and comments (how are these issues regulated)?

Answer: Some of these issues (c, d, f, g) are being addressed in regulations, some in guidelines (e).

- 3.** Are there any plans to extend the use of digital technologies and, if yes, in which stages of the electoral cycle? Can you specify what type of technology is envisaged? And are there any plans for reviewing the relevant regulations or introducing new ones?

Answer: There are plans to implement i-voting for voters abroad. The new government has included this goal in its program.

- 4.** Have any significant difficulties arisen from the use of digital technologies in specific stages of the electoral cycle in the past? How were these difficulties resolved?

Answer: There were no significant difficulties that could have compromised election process.

- 5.** Has the COVID-19 pandemic had an impact in the field of elections? For instance, has it given rise to a public debate on the organisation of elections in general or as regards the introduction of new technologies in elections? Have changes in the electoral system been introduced to ensure the organization of elections during the pandemic? If yes, were these changes introduced considered effective?

Answer: Yes, it has impacted. The discussions about the introduction of i-voting have been renewed in society.

- 6.** What are the regulations applying to procurement as regards the provision of digital technologies by private companies?

Answer: It is applied a common regulation of public procurement.

- 7.** Are resources made available for the use of digital technologies adequate?

Answer: So far, available resources meet the need of digitalization of election process.

- 8.** Would you find an added value in greater exchange of information/ guidance in this area, at international level?

Answer: Yes, we would find it very useful.

- 9.** Is there any additional information that you would like to provide, in relation to any stage of the electoral cycle?

Answer: Political campaign (Electoral campaigning) covers stages from Training to Post-election duties. Political parties and political campaign financing control subsystem is the biggest and most complex of all and subsystems. Its size is about 40% of all information system size.

10. Additional specific aspects on which delegations may want to provide information:

bb. Does the EMB hire and involve personnel with a background in computer-science, engineering or a related field at drafting regulations, guidelines, contracts and procedures? What is their mission?

Answer: EMB hires specialist with a background in computer-science for public procurement process of development of information system and for project related to development of information system administration.

cc. How are the systems, the operational infrastructure as well as the operational and maintenance procedures scrutinized? Is public scrutiny supported for example by publishing the source code of custom software? What are the roles of the EMB and other organisations (e. g. organisations on lower levels of government) at enforcing compliance with security-sensitive requirements?

Answer: Information System of CEC is closed code so there is no possibility for public scrutiny.

Key electoral procedures are being performed in test infrastructure and only in case of success these procedures can be processed on production environment. Testing phase is critical for successful elections.

National Cyber Security Centre conducts cyber threat screening of Information System of CEC and performs risk evaluation and compliance assessment before national elections.

There are plans to declare Information system of CEC as critical infrastructure.

dd. Are there any system-independent procedures defined to verify the correctness of critical data held and computations performed by the systems in question (e. g. digitalised votes, counting, tabulation, election results; voter register)?

Answer: Its obligatory to recount 5% of the preference votes for the candidates.

See. Republic of Lithuania Law on Elections to the Seimas

Article 82. part 7

A constituency electoral committee shall, in accordance with the procedure laid down by the Central Electoral Commission, select by drawing lots a polling district or districts and a list or lists of candidates therein for which votes have been cast and the preference votes for the candidates of which must be recounted and organise the vote recounting. After the votes have been recounted, the votes recounting record of the polling district shall be drawn up. If, after the recounting of votes, different results of the counting of votes are established compared to those established by the polling district electoral committee, all votes cast by voters of that polling district shall be recounted.

<https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/496d04f09f4611eaa51db668f0092944?jfwid=t60ymzslb>

LUXEMBOURG

QUESTIONNAIRE

In reviewing your responses, the CDDG Secretariat may need to contact you for further questions or clarifications. To this end, we would be grateful if you could provide us with your contact details:

Author of the response

- Country: Luxembourg
- Organisation / Election Management Body (EMB): Ministry of State
- Name: Anne Greiveldinger
- Position / Function : Government Counsellor / Lawyer
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Questions

1. At what stages of the electoral cycle are digital technologies used (see the attached document by Ms Ardita Driza Maurer)? What types of digital technologies are used?

Stages in the electoral cycle at which digital technologies are used:

- Keeping and updating the electoral roll: the electoral roll is drawn up and updated in digital form on the basis of the national register of natural persons (electronic register).
- Exchange of electoral registers: the exchange of electoral registers between Member States and at national level is carried out in a digital format and using secure electronic exchange platforms.
- Application for registration on the electoral roll: applications for registration on the electoral roll can be transmitted via the internet through a secure electronic platform.
- Requests for postal voting: requests for postal voting may be transmitted via the internet through a secure electronic platform.
- Convocation letters, polling station minutes, candidate registration forms, witness registration forms, appointments of polling station members, circulars to municipal administrations, etc. Conversion of texts into digital form.
- Validation and dissemination of unofficial election results: the regularity of unofficial results is monitored and validated using an electronic programme. The unofficial results are then disseminated to the public on the state website.

2. Does the use of digital technologies in the electoral cycle follow an overall digitisation strategy?

No, not particularly.

2. How are the following issues addressed in or applicable to the internal regulations, guidelines, contracts or procedures of the election management body (EMB) or their partner organisations?

- a. Use of information and communication technologies (ICTs) with a human rights focus in the electoral field

The digitisation of the processes for registering on the electoral roll and applying to vote by correspondence is intended to simplify administrative procedures for citizens and also to make voting more accessible to people with disabilities, the elderly, people travelling or living abroad, thereby encouraging them to exercise their right to vote.

- b. Detailed human rights requirements are needed to regulate the use of ICTs in elections

/

- c. Usability of ICTs

/

- d. The interaction of data protection and secrecy of vote requirements

The rules of the RGPD must be respected by all actors involved in the organisation of the elections. The National Commission for Data Protection sends a note to the attention of local administrations in advance of the elections which addresses the issue of issuing copies of the electoral roll to citizens who request them.

- e. Transparency

Transparency of the electoral process is essential to maintain and strengthen voter confidence in the electoral system. For this reason, election legislation remains a matter reserved by the Constitution for the legislature alone. The rules are very precise and scrupulously describe the various stages from the pre-electoral phase to the proclamation of results.

- f. Cybersecurity issues, including risk strategies, protection measures, audit possibilities and contingency plans

An analysis of the risks in terms of network and information system security is carried out prior to each election by the State's Centre for Technology and Information and the National Information Systems Authority. Since this analysis is part of the exercise of their IT security remit and the definition, in consultation with the actors concerned, of a risk management approach, these issues have not been addressed specifically for the field of elections.

- g. Control, enforcement and accountability requirements

/

- h. Issues of resources and cooperation with the private sector need to be addressed.

The costs of organising the elections are fully covered by the state. The Law on the State Budget provides for a specific budget article for the elections for this purpose.

Elections are organised entirely by state departments. When it is necessary to use private sector actors (e.g. for the supply of electoral material), public procurement legislation must be respected.

If so, provide details and comments (how are these issues regulated)?

For contracts below the threshold of €60,000 excluding VAT provided for in Article 151 of the Grand-Ducal Regulation implementing the Law of 8 April 2018 on public procurement, the negotiated procedure or the restricted procedure may be used without publication of a notice without any further justification.

For contracts between the threshold of € 60,000 and € 122. 623.20 excluding VAT (discounted value for the year 2020 of the threshold of fourteen thousand euros excluding VAT index number 100 provided for in Article 20(3) of the Law on Public Procurement), recourse may be had either to the restricted procedure without publication of a notice or to the negotiated procedure on condition that the contracting authority, in the case of a restricted procedure without publication of a notice, invites at least three candidates to tender, and in the case of a negotiated procedure, admits at least three candidates to the negotiations, provided there is a sufficient number of suitable candidates.

The use of the negotiated procedure or the restricted procedure without publication of a notice is also possible provided that the contract to be concluded falls within one of the cases restrictively provided for in Article 20 of the Law on Public Procurement.

3. Is there a plan to extend the use of digital technologies and, if so, at what stages of the electoral cycle? Can you specify what type of technology is envisaged? And are there plans to revise the relevant regulations or introduce new ones?

No, not at present.

4. Has the use of digital technologies at specific stages of the electoral cycle posed significant difficulties in the past? How have these difficulties been resolved?

No.

5. Has the Covid-19 pandemic had an impact in the area of elections? For example, has it led to public debate on the organisation of elections in general or the introduction of new technologies in elections? Were any changes made to the electoral system to ensure the organisation of elections during the pandemic? If so, were these changes deemed effective?

As the next elections will only take place in the year 2023, the question of the impact of the Covid-19 pandemic on elections has not been debated. For the same reason, there was also no need for a change in the electoral system. However, it should be noted that the current legislation already allows all voters to vote without having to go to a polling station by using postal voting via an online application.

6. What regulations apply to public procurement with regard to the supply of digital technologies by private companies?

See above, our answer to question 2, point h.

7. Are the resources made available for the use of digital technologies adequate?

Yes.

8. Would you find added value in a greater exchange of information/guidance in this area at the international level?

Yes.

9. Would you like to provide additional information on any stage of the electoral cycle?

No.

10. Other specific aspects on which delegations may wish to provide information:

a. Does the EMB hire and involve staff with training in computer science, engineering or a related field in the drafting of regulations, guidelines, contracts and procedures? What is their mission?

Yes, qualified computer specialists are in charge of the application of postal voting applications and the calculation of the results of the ballot. Lawyers handle the regulatory, contractual and procedural aspects.

b. How are systems, operational infrastructure and operating and maintenance procedures monitored? Is public control supported, for example, by publication of the source code of custom software? What are the roles of the EMB and other organisations (e.g. organisations at lower levels of government) in enforcing sensitive security requirements?

Systems, operational infrastructure and operating and maintenance procedures are managed under an Information Security Management System (ISMS) based on the ISO 27000 family of standards. In addition, the State Information and Technology Centre conducts regular internal and external audits to ensure the compliance and security of systems, infrastructure and procedures related to the management of elections.

c. Are system-independent procedures defined to verify the accuracy of critical data held and calculations made by the systems in question (e.g. digitised voting, counting, tabulation, election results; voter register)?

Yes, for the counting of unofficial election results. In the context of the exchange of voters' lists, some municipalities have set up an internal procedure to carry out checks before removing a citizen from the register, but this is not systematic for all municipalities.

**REPUBLIC OF MOLDOVA
(Venice Commission)**

QUESTIONNAIRE

When examining your replies, the Secretariat of the CDDG may need to contact you for further enquiries or clarifications. To that end, we would appreciate that you provide your contact details:

Author of the reply

- Country: Republic of Moldova
- Organisation / Election Management Body (EMB): Central Electoral Commission
- Name: Corneliu Pasat
- Position / Function: Deputy Chief of Communication, Public Relations and Media Division
- E-mail: corneliu.pasat@cec.md
- Phone number: +373 79503529

Questions

- 1.** In which stages of the electoral cycle are digital technologies used (see the attached paper by Ms Ardita Driza Maurer)? What kind of digital technologies are used?

1) Legal framework.

N/A (Not Applicable).

2) Planning and preparation for the implementation of electoral activities.

- ✓ Electoral officials Register - an Automated Information System that has the goal to automate the processes of preparation of the electoral infrastructure by digitalizing the processes of evidence and data management about the electoral officials involved in the electoral processes. As the lower electoral bodies are not permanent, the register is used for the creation of lower EMBs for the organization of elections.
- ✓ Application „Documentation” - a tool used especially by the Election Management Directorate for optimizing the process of registration and distribution of electoral documents, ID cards and electoral equipment by automating the insertion of data and performing appropriate calculations, including the generation of handover documents based on the provided data. The application is also used to record and distribute other assets necessary for the organization and conduct of elections and referendums (eg for presidential election organized in this year on November 1 and 15 was the anti-COVID equipment were distributed to the District electoral council using this application).
- ✓ Application for preliminary registration of citizens from abroad – is not mandatory, it is only a tool to establish the major concentrations of voters abroad, the opening of polling stations outside (besides of diplomatic missions and consular offices).

3) Training and education of voters, regulation of conduct of observers.

- ✓ E-learning platform (<https://e-learning.cicde.md/home>) – provides a broad spectrum of

trainings for electoral officials, but also for other interested stakeholders during the whole electoral cycle. Electoral officials have been trained also through zoom platform and youtube.com

- ✓ Electronic Register of trained and certified persons – includes data about all the persons that have participated in trainings organized by the Center for Continuous Electoral Training near CEC.
- ✓ Video-audio recording and streaming equipment for insuring better transparency, integrity and credibility in the Commission activity. All the CEC meetings and other important events are transmitted online and recorded.
- ✓ Online application diaspora.voteaza.md – allows citizens voting abroad to find the closest Polling Station, by using the location identification from the smartphone.
- ✓ Online application for submitting the financial report by candidates and political parties - Information can be visualized by the interested subjects in a user-friendly manner.
- ✓ Online search of the polling station to which voter was assigned by personal number or by the address of the voter.
- ✓ Electoral information and education campaign conducted on the institution official web page cec.md; on the voteaza.md (special web page used only for civic education), account on social media (Facebook, Instagram etc.), on youtube.com platform.

4) Registration of voters, political parties and election observers;

- ✓ The State Register of Voters is a single integrated information system which keeps records of the voters from the Republic of Moldova. The Registry is designed to collect, keep, update and analyze data about citizens of the Republic of Moldova who has reached the age of 18 years and does not have legal impediments to vote. This Register of Voters is created using the State Registry of Population. During the electoral period, voters are allocated to the polling stations according to their address registration and Voters Lists are created and transmitted to the polling stations.
- ✓ Online verification of information from Voters List.
- ✓ The information about the candidates registered for the position of Mayor and local councils of all localities, in the local elections is processed with the help of the SIAS "Elections" module, which automatically generates the ballots.
- ✓ Automated verification of data of supporters of candidates that are responsible for collecting signatures for the registration of independent candidates (in case of Local and Parliamentary Elections) and all candidates for the position of President of the Republic.
- ✓ Automated verification of data from signature collecting list in support of candidates or in support for a question proposed for initiating a referendum.
- ✓ Module "Observers" enables CEC and all level electoral management bodies to fully handle the registration process of the observers in any type of election.

5) Electoral campaigning, including official information addressed to electors.

N/A

6) Voting operations, including polling, counting and tabulating results.

- ✓ On Elections Day, SIAS "Elections" operators verify on-line the identity of voters in the State Voters' Register and registered their participation in elections to combat multiple voting. Also, the system provides online disaggregated data on voters participation.

- ✓ The piloting of the "Observers" Module took place in the new local elections and then, in the presidential elections in the autumn of this year, in several polling stations. This module provides a unique record of IDs, through the centralized processing of information necessary for the process of accreditation of observers and registration of interpreters who can assist, according to legal norms, international observers. About the possibility that observers may report violations committed in polling stations on election day, online, to the electoral bodies, which would examine them, is still under development.

7) Election results announcement, including transmission and publication of results, the resolution of electoral disputes, reporting, auditing.

- ✓ After the tabulation of results by the Precinct Electoral Bureaus, operators introduce the data from the PEB protocol in the system. Information can be visualized in on-line regime on the CEC official web site in a user-friendly manner and provided disaggregated data.

8) Post-election duties including the destruction and/or archiving of materials.

- ✓ Application "Anticamera" – used for the registration of all official documents addressed to the CEC and tracks the resolution of the requests, including the respect of the deadlines.
- ✓ Module "Rotation" – used for tracking the assignment of the mandates for the local elected councillors between two General Local Elections. In case a mandate of local councillor becomes vacant, the mandate is assigned to the next persons from the list of the competitor that won in the last elections.
- ✓ Online application for submitting the financial report by candidates and political parties.

Does the use of digital technologies in the electoral cycle follow an overall digitization strategy?

- ✓ Law 101 of 2008 on the State Automated Information System for Elections. Requires the CEC to establish a comprehensive IT system for electoral management. This is known as 'SAISE'. SAISE is to be used by the CEC and by inferior electoral bodies for a range of electoral management tasks as well as voter registration. Requires the CEC to eventually take overall responsibility for the compilation of the electoral register, which is to be run on a national basis using the SAISE, and to provide online electronic voters registers in all polling stations.
- ✓ Also, in the CEC Strategic Plan for 2020-2023, is included and described an objective – Development of accessible, secured and innovative services. It includes such strategic activities as automation of polling stations; Improving SAISE; Enhancing electoral inclusiveness.

2. How are the following issues addressed in regulations, guidelines, contracts or internal procedures of or applicable to the Election Management Body (EMB) or their partner organisations:

- bbbb. Human rights-centred use of Information and Communication Technology (ICT) in the electoral field
- cccc. Detailed requirements stemming from human rights are necessary to regulate the use of ICT in elections
- dddd. Usability of ICT
- eeee. The interplay of data protection and requirements relating to the secrecy of the vote

ffff. Transparency

gggg. Cybersecurity issues, including risk strategies, protection measures, verification possibilities, and contingency planning

hhhh. Control, enforcement and accountability requirements

iiii. Issues related to resources and co-operation with the private sector should be addressed.

If so, provide details and comments (how are these issues regulated)?

- ✓ Law 101 of 2008 on the State Automated Information System for Elections. Requires the CEC to establish a comprehensive IT system for electoral management.
 - ✓ Central Electoral Commission holds the ISO 9001 certified Quality Management System and ISO 27001 on Information Security System. In line with the requirements, several procedures have been drafted: Instruction on the management of changes in information systems; Procedure for security risk analysis, management and assessment; Instruction on Access to Information Resources.
 - ✓ Continuity plan of activity and recovery in case of incidents.
- 3.** Are there any plans to extend the use of digital technologies and, if yes, in which stages of the electoral cycle? Can you specify what type of technology is envisaged? And are there any plans for reviewing the relevant regulations or introducing new ones?
- Yes. We plan to develop and implement:
- ✓ I-voting – but it depends on political will.
 - ✓ "Complaints Module" – that will track the complaints submitted to the EMBs, including their resolution and the information will be available for the public.
- 4.** Have any significant difficulties arisen from the use of digital technologies in specific stages of the electoral cycle in the past? How were these difficulties resolved?
- ✓ DoS attack on the information resources from inside and outside the country,
 - ✓ Jamming the connections between the computers from the polling stations and the CEC database.
 - ✓ Keeping under control a large number of users from polling station who have access to the information resources.
- 5.** Has the COVID-19 pandemic had an impact in the field of elections? For instance, has it given rise to a public debate on the organisation of elections in general or as regards the introduction of new technologies in elections? Have changes in the electoral system been introduced to ensure the organization of elections during the pandemic? If yes, were these changes introduced considered effective?
- ✓ No changes in the electoral system and legislation have been done due to COVID. Special measures for protection have been adopted and applied.
 - ✓ As a challenge, the voting time for one voter has increased. To solve this issue were used scanners to faster, manage the flow of voters in the biggest/more crowded polling stations. Also, the scanners helped to avoid the direct contact with the voter ID of the polling station operator that was checking/registering the voter presence.

- ✓ For the training of the electoral officials, were used more online technologies. Also for the information of voters, CEC has used more the web pages, social media and TV.
- ✓ Right before the elections, but also after, more discussion in the society have arisen on the need to implement alternative voting methods: Internet Voting, Early voting, Postal Voting. This was generated by the spread of COVID-19 but also because on E-Day long lines were registered at the polling stations opened abroad and for the Moldovan citizens living on the territories which are outside the control of the constitutional authorities (in this polling station people vote on opened supplementary list) and people had to wait for hours to vote.

6. What are the regulations applying to procurement as regards the provision of digital technologies by private companies?

- ✓ Law No. 131 of 3 July 2020 on public procurements - https://www.legis.md/cautare/getResults?doc_id=113104&lang=ro
- ✓ Government Decision No. 544 of 12 November 2019 on some measures for the organization of the process of acquisitions in the field of ITC - https://www.legis.md/cautare/getResults?doc_id=118946&lang=ro
- ✓ Government Decision No. 987 of 10 October 2018 for approving the Regulation on the procurement of goods and services by requesting price offers - https://www.legis.md/cautare/getResults?doc_id=109176&lang=ro

7. Are resources made available for the use of digital technologies adequate?

Resources allocated from the state budget are not sufficient. In this regards, we also benefit from support from the development partners, including the Council of Europe.

8. Would you find an added value in a greater exchange of information/ guidance in this area, at the international level?

Yes

9. Is there any additional information that you would like to provide, in relation to any stage of the electoral cycle?

No

10. Additional specific aspects on which delegations may want to provide information:

ee. Does the EMB hire and involve personnel with a background in computer science, engineering or a related field at drafting regulations, guidelines, contracts and procedures? What is their mission?

Yes. They offer support for server administration, configuration and development of software, databases. Also, before elections, we hire technical staff to check the functionality of the laptops/equipment used in the polling stations.

ff. How are the systems, the operational infrastructure as well as the operational and maintenance procedures scrutinized? Is public scrutiny supported for example by publishing the source code of custom software? What are the roles of the EMB and other organisations (e.g. organisations on lower levels of government) at enforcing compliance with security-sensitive requirements?

According to the roadmaps, implementation plan, systems testing plan.

gg. Are there any system-independent procedures defined to verify the correctness of critical data held and computations performed by the systems in question (e.g. digitalised votes, counting, tabulation, election results; voter register)?

Yes:

- ✓ Competitor registration procedures;
- ✓ Verification of the data on competitors' supporters that collect signatures;
- ✓ Voter registration on E-Day;
- ✓ Processing elections results;
- ✓ Processing the documents that enter and exit the CEC.

NORWAY

QUESTIONNAIRE

When examining your replies, the Secretariat of the CDDG may need to contact you for further enquiries or clarifications. To that end, we would appreciate that you provide your contact details:

Author of the reply

- Country: Norway
- Organisation / Election Management Body (EMB): Answers collected from both the Norwegian Directorate of Elections and Norwegian Ministry of Local Government and Organisation
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- Position / Function: Senior adviser in the Ministry
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- Phone number:

Questions

1. In which stages of the electoral cycle are digital technologies used (see the attached paper by Ms Ardita Driza Maurer)? What kind of digital technologies are used? Does the use of digital technologies in the electoral cycle follow an overall digitisation strategy?
 - Election preparation by counties and municipalities using the election administration system, EVA, provided by the Norwegian Directorate of Elections
 - Electoral roll production, provided by the The Norwegian Tax Administration
 - Electronic mark off for voting (using paper ballots) (EVA)
 - Ballot counting (EVA)
 - Election settlement (EVA)
 - Prognosis and results reporting (EVA)

The technologies used are mainly public enterprise systems, compliant and parts of the Government's ICT policy.

2. How are the following issues addressed in regulations, guidelines, contracts or internal procedures of or applicable to the Election Management Body (EMB) or their partner organisations:

jjjj. Human rights-centred use of Information and Communication Technology (ICT) in the electoral field

kkkk. Detailed requirements stemming from human rights are necessary to regulate the use of ICT in elections

llll. Usability of ICT

mmmm. The interplay of data protection and requirements relating to the secrecy of the vote

nnnn. Transparency

- oooo. Cybersecurity issues, including risk strategies, protection measures, verification possibilities, and contingency planning
- pppp. Control, enforcement and accountability requirements
- qqqq. Issues related to resources and to co-operation with the private sector should be addressed.

If so, provide details and comments (how are these issues regulated)?

Unfortunately, this question is too broad and out of scope for the respondents of the survey – the deadline for answers was also very short and we have not been able to prioritise further examination of the topics.

- 3.** Are there any plans to extend the use of digital technologies and, if yes, in which stages of the electoral cycle? Can you specify what type of technology is envisaged? And are there any plans for reviewing the relevant regulations or introducing new ones?

There are currently no politically decided plans to extend the use of digital technology beyond current scope. However, the Ministry received in 2020 an Official Norwegian Report from an appointed Election Commission, which drafted a new Election Act and thoroughly reviewed all parts of the election system and the conduct of elections, including the use of technology. The Ministry will follow up the report with a proposition to the Parliament.

- 4.** Have any significant difficulties arisen from the use of digital technologies in specific stages of the electoral cycle in the past? How were these difficulties resolved?

No significant difficulties have arisen from the use of digital technologies in the past.

- 5.** Has the COVID-19 pandemic had an impact in the field of elections? For instance, has it given rise to a public debate on the organisation of elections in general or as regards the introduction of new technologies in elections? Have changes in the electoral system been introduced to ensure the organization of elections during the pandemic? If yes, were these changes introduced considered effective?

The Ministry has established a working group with the mandate to recommend provisional changes in election regulations and give advice on how the elections of 2021 best can be conducted. The Ministry will follow up the working group's report with a bill to the Parliament. There are no recommendation on introducing new technology – the recommendation is to *not* use any new technology, but rather increase the flexibility of the existing manual procedures.

- 6.** What are the regulations applying to procurement as regards the provision of digital technologies by private companies?

Procurements must be done in accordance with the Procurement Act, in addition relevant parts of the Security Act applies to procurements – depending on the purpose of the procurement.

- 7.** Are resources made available for the use of digital technologies adequate?

Public services' use of digital technologies is supported by the Norwegian Digitalisation Agency, which provides regulation, guidelines and national common IT-services

- 8.** Would you find an added value in greater exchange of information/ guidance in this area, at international level?

Yes.

- 9.** Is there any additional information that you would like to provide, in relation to any stage of the electoral cycle?

No.

- 10.** Additional specific aspects on which delegations may want to provide information:

hh. Does the EMB hire and involve personnel with a background in computer-science, engineering or a related field at drafting regulations, guidelines, contracts and procedures? What is their mission?

Yes – on demand.

- ii. How are the systems, the operational infrastructure as well as the operational and maintenance procedures scrutinized? Is public scrutiny supported for example by publishing the source code of custom software? What are the roles of the EMB and other organisations (e.g. organisations on lower levels of government) at enforcing compliance with security-sensitive requirements?

Revisions of all aspects of operations and maintenance are performed by the Norwegian National Security Authority, private accredited actors and through limited publishing of source code for applications developed by the Norwegian Directorate of Elections.

- jj. Are there any system-independent procedures defined to verify the correctness of critical data held and computations performed by the systems in question (e.g. digitalised votes, counting, tabulation, election results; voter register)?

The election process is the main revision mechanism to verify the correctness of critical data held in systems. Paper ballots ensure a "paper-trail" throughout the process, in addition all ballots are counted manually once as a minimum. The election process is a paper based process utilising IT technology as support systems.

POLAND

QUESTIONNAIRE

When examining your replies, the Secretariat of the CDDG may need to contact you for further enquiries or clarifications. To that end, we would appreciate that you provide your contact details:

Author of the reply

- Country: Poland
- Organisation / Election Management Body (EMB): Państwowa Komisja Wyborcza (National Electoral Commission)
- Name/ Position / Function:
 1. Bartosz Malangiewicz – the Director of IT Team of National Election Office
 2. Milena Raciborska – a specialist in Legal and Election Team of National Election Office
- E-mail: biuro@kbw.gov.pl
- Phone number: +48 22 243 03 00

Questions

1. In which stages of the electoral cycle are digital technologies used (see the attached paper by Ms Ardita Driza Maurer)? What kind of digital technologies are used? Does the use of digital technologies in the electoral cycle follow an overall digitisation strategy?

Digital technologies are used:

1. *in the stage of planning and preparation of electoral cycle*
 - a) *while establishing and making public the electoral calendar, which defines when the terms of electoral activities expire*
 - b) *while preparing the report for electoral authorities, which is used among others to verify if electoral boundaries and seats of electoral commission are constituted properly, if seats of electoral commissions are accessible for people with disabilities, and to define the numbers of citizens who are eligible to vote including those added to or deleted from electoral register, to define the number of issued certificates of vote which entitle voters to vote in any electoral district they chose and letters of attorney which entitle to vote by proxy and also the number of sent electoral packages in case voters apply to vote by post*
 - c) *while informing about seats of precinct election commissions as well as about members of election authorities introduced in the IT system and published on the website dedicated to elections. Every voter will have the possibility to get acquainted with the above mentioned information before they go to a polling station. Thanks to the browser of electoral districts every voter will be able to find the electoral district where they are registered*
2. *for educational and training purposes, data introduced into the system in a form of clear visualisation are published on the website dedicated to elections*
3. *for assisting election authorities in*

- a) *registering election committees participating in the elections*
- b) *registering lists of candidates participating in the elections and introducing the candidates to the voters in an accessible way by using visualisation published on the website*
- c) *as a support in determining election results. Moreover every voter has an access to the website dedicated to elections where the election results are published with the scans of voting protocols from different precinct election committees*
- d) *registration of voters and applications of voters who plan to vote by post*

The system that is used is being continuously improved and new functions, which aim is to enable the use of these technologies at wider range, are being introduced

- 2.** How are the following issues addressed in regulations, guidelines, contracts or internal procedures of or applicable to the Election Management Body (EMB) or their partner organisations:

- a. Human rights-centred use of Information and Communication Technology (ICT) in the electoral field

The information about elections is presented on the website and is accessible to every voter. Various forms of written information and educational spots connecting the elections are prepared. They are published on the website of National Electoral Commission, on social media and are presented on TV and the radio. Taking into consideration people with disabilities all the information is translated into Polish sign language

- b. Detailed requirements stemming from human rights are necessary to regulate the use of ICT in elections

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- c. Usability of ICT

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- d. The interplay of data protection and requirements relating to the secrecy of the vote

Acts of Electoral Code include regulations which enable the secrecy of vote. In the electoral process GDPR regulations are respected

- e. Transparency

National Electoral Commission provides voters with up to date information about conducting elections, exit poll results and final results by organising press conferences, publishing information about elections on their website and in social media. Moreover according to Electoral Code to monitor the elections a person of trust, a social observer and an international observer are introduced. They are present when electoral commission activities are conducted. Electoral authorities cooperate also with OBWE

- f. Cybersecurity issues, including risk strategies, protection measures, verification possibilities, and contingency planning

As far as cybersecurity is concerned, the act from the 5th of July 2018 about the national system of cybersecurity (Dz. U. z 2020 r. poz. 1369) applies. Moreover there is cooperation with Computer Security Incident Response Team.

g. Control, enforcement and accountability requirements

Government ordinance from the 12th of April 2012 about national framework of interoperability, minimizing the expectations of public registrations and exchange of information online and minimizing expectations of IT systems.

h. Issues related to resources and to co-operation with the private sector should be addressed.

If so, provide details and comments (how are these issues regulated)?

Cooperation with relevant services, security audit

3. Are there any plans to extend the use of digital technologies and, if yes, in which stages of the electoral cycle? Can you specify what type of technology is envisaged? And are there any plans for reviewing the relevant regulations or introducing new ones?

There are plans to introduce Central Election Register thanks to which problems with voting in other electoral district then registered could be avoided. The assumption is such that the introduction of the system enables voters to vote in the place where they actually are at the moment of elections.

4. Have any significant difficulties arisen from the use of digital technologies in specific stages of the electoral cycle in the past? How were these difficulties resolved?

Yes, they have. There were difficulties connected with the use of digital technologies in electoral cycle. It took place during the election to local government in 2014. The problems were resolved mainly by proper preparation of programme assumptions preceded by detailed analysis of needs and possibilities, change in the attitude to completing electoral commissions and change to regular cooperation with a team of IT specialists as well as developing IT system that would undergo various tests before final implementation and would be used for planned elections from the very beginning.

5. Has the COVID-19 pandemic had an impact in the field of elections? For instance, has it given rise to a public debate on the organisation of elections in general or as regards the introduction of new technologies in elections? Have changes in the electoral system been introduced to ensure the organization of elections during the pandemic? If yes, were these changes introduced considered effective?

Yes, the COVID-19 pandemic had meaningful impact on the electoral process in the presidential election 2020. Due to pandemic during presidential elections a lot of changes in election law had to be introduced which enabled conducting elections in a safe way both to voters and members of electoral authorities. The possibility of voting by post for all voters and extending the possibility of voting by proxy to other groups of voters were introduced as well as the procedure of voting by post for those being in quarantine or isolation with connection to SARS_CoV2

6. What are the regulations applying to procurement as regards the provision of digital technologies by private companies?

The question of public procurement is regulated by the act of public procurement law (Dz. U. z 2019 r. poz. 2019 r. z późn. zm.). Additionally the Electoral Code states that developing and applying software supporting the electoral authorities is exclusively the task of National Electoral Office

7. Are resources made available for the use of digital technologies adequate?

Yes, they are

8. Would you find an added value in greater exchange of information/ guidance in this area, at international level?

Yes, we would. It is worth looking for inspirations in other countries and exchange experience with other specialists. Conferences, discussions, publications help to exchange information and are an added value

9. Is there any additional information that you would like to provide, in relation to any stage of the electoral cycle?

It is necessary to notice that in Poland the elections take place in so called "papier" version. That means that the basis for determining the election results are the protocols which are handwritten and signed by authorized persons from electoral commission. According to the rules of the electoral code, the IT system is used exclusively as additional assistance to support electoral authorities with establishing and examining the correctness of determining election results

10. Additional specific aspects on which delegations may want to provide information:

a. Does the EMB hire and involve personnel with a background in computer-science, engineering or a related field at drafting regulations, guidelines, contracts and procedures? What is their mission?

Yes it does. The mission is to create more effective, and more useful systems

b. How are the systems, the operational infrastructure as well as the operational and maintenance procedures scrutinized? Is public scrutiny supported for example by publishing the source code of custom software? What are the roles of the EMB and other organisations (e.g. organisations on lower levels of government) at enforcing compliance with security-sensitive requirements?

Cooperation with relevant services, security audit (as mentioned above)

c. Are there any system-independent procedures defined to verify the correctness of critical data held and computations performed by the systems in question (e.g. digitalised votes, counting, tabulation, election results; voter register)?

As mentioned above protocols prepared in paper version are the basis for determining the election results. IT system provides exclusively support in performing activities by electoral authorities.

ROMANIA

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Permanent Electoral Authority
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Questions

1. In which stages of the electoral cycle are digital technologies used? What kind of digital technologies are used? Does the use of digital technologies in the electoral cycle follow an overall digitization strategy?

In Romania, the Permanent Electoral Authority (PEA) envisages all appropriate technical and alternative options in order to create a better and safer environment for all the citizens to have access to the electoral process and express their constitutional rights. The institution continues to provide special attention to increasing participation among voters and making elections more inclusive, in the same time aiming to adapt to any challenges that may arise. In this context, information and communications technologies (ICT) continue to be a priority on our agenda. PEA uses digitalization for the following electoral stages: electoral planning and preparations, registration, voting operations, election result announcement and post-election. The digital technologies used in the Romanian electoral process are:

- **The Electoral Registry** – has been developed in order to register voters and their allocation to a polling station. Since its establishment, the electoral registry has grown by the addition of a few modules that allow us to manage our databases of electoral staff from the polling stations (electoral experts that can be presidents or vice-presidents of the polling stations and tablet operators). We automatically register voters in our national electoral registry, based on the information provided by the Directorate for Persons Record and Databases Management for all Romanian citizens that are able to vote. Regarding the Romanian citizens living abroad we receive data from the Passports General Directorate. The legal framework for the Electoral Registry is provided by the *Law no. 208/2015 on the election of the Senate and the Chamber of Deputies, as well as on the organization and functioning of the Permanent Electoral Authority (Chapter IV, Section I, Art. 24- 47)*.

This data is regularly updated in our electoral registry by data import and in order to ensure a high accuracy of our data we up the number of data imports in the electoral period. For some of our electoral processes that involve voting abroad, Romanian citizens living abroad can register online using a form to vote abroad at a polling station or by mail. They are removed from the other permanent electoral lists and registered only on the specific electoral permanent lists for voting abroad. Every voter can find their polling station using a search module built into the electoral registry. Using the data from the electoral

registry we generate electronic voters lists. These are printed and also sent to be imported in SIMPV, the system that prevents multiple voting. Thus, the Electoral Registry ensures a complete and accurate legal framework for voter registration, is open to public inspection and easy to access, has clear rules for correcting mistakes or omissions and has no discriminatory practices regarding certain groups of citizens.

- **SIMPV - Information System for Monitoring Turnout and Preventing Illegal Voting:** provides e-identification of voters in the electoral lists imported from the electoral registry, prevents multiple voting, sends live statistics about the number of voters to a webpage, and is used to transmit electronically the provisional voting results, after manual counting of votes at the polling stations, to be centralized.
- **SICPV- Information System for Centralizing Reports:** used to ensure transparency and integrity of the tabulation process, by automatically sending provisory, partial and final results to a webpage, once official documents are uploaded into the system by the electoral precincts bureaus or upper electoral bureaus.
- **Software used for distribution of mandates:** each type of electoral process has its own algorithm for distributing the nominal mandates to the candidates who won, this algorithm is built into an app that has input data from SICPV and outputs the final results of the election.
- **Other - Applications used for registration of candidates, proxy voting registration, designation of electoral officials and computer operators.**

PEA has not developed yet any digitization strategy, but takes into consideration the benefits of the digital alternatives implemented so far and the fact that the improved accuracy in counting and tabulation has reduced, to a certain extent, the space for human error, and accelerated the publication of election results.

2. How are the following issues addressed in regulations, guidelines, contracts or internal procedures of or applicable to the Elections Management Body (EMB) or their partner organizations:

a. Human rights-centered use of information and Communication Technology (ICT) in the electoral field

Law no. 208/2015 creates the legal foundation for the human rights-centered use of information and communication technology. The Electoral Registry is a national computer system for the recording and update of the identification data of the Romanian citizens with the right to vote and of the information concerning their assignment to polling stations. It records and updates the identification data of the Romanian citizens with the right to vote; carries out the communications set by law concerning the identification data of voters and their assignment to the polling stations; assigns the Romanian citizens with the right to vote to the polling stations; draws up the permanent electoral lists and carries out the communications set by law concerning the update of permanent electoral lists.

Another feature related to the human rights-centered use of information and communication technology results from the right of the voter to verify their registration in the Electoral Registry. Rebuttals against omissions, wrong entries and any other errors in the Electoral Registry shall be filed with the county offices or branches of the Permanent Electoral Authority, the latter being bound to

adjudicate on them, through decision, within three days, at the most, from the date of their registration.

PEA uses ICT to ensure a proper and quick verification of voters and also to improve the voting process for all the parties involved. The institution makes use of unique identification system of all voters based on their unique identification code, with the aim of ensuring equal suffrage (one person one vote).

b. Detailed requirements stemming from human rights are necessary to regulate the use of ICT in elections

-

c. Usability of ICT

-

d. The interplay of data protection and requirements relating to the secrecy of the vote

The authority has the necessary means to efficiently prevent multiple voting attempts, to maintain a high-rate accuracy in assigning voters to each polling station, to work effectively with the lower levels of government across our country. By collecting and tabulating the number of votes using an ICT solution we are able to provide accurate and transparent results in a more efficient manner.

Information System for Monitoring Turnout and Preventing Illegal Voting (SIMPV) verifies whether the persons have the right to vote, according to the law, signals illegal voting attempts and prevents multiple voting attempts, presents statistical data on turnout on the website <https://prezenta.roaep.ro>. However, this application is not used in the counting process. The president of the polling station decides whether to allow the voter to exercise his or her right to vote.

Moreover, regarding the Electoral Registry the persons authorized to conduct operations in this application, including the Romanian citizens domiciled or residing in the country, are the mayors or the persons appointed by the mayors, by order, according to the law. The persons authorized to conduct operations in the Electoral Register including the Romanian citizens domiciled or residing abroad are the persons appointed by the Permanent Electoral Authority. The Ministry of Foreign Affairs can appoint, with the Permanent Electoral Authority's assent, persons authorized to make inquiries in the Electoral Register including the Romanian citizens domiciled or residing abroad. Also the persons empowered, by order of the President of the Permanent Electoral Authority, shall carry out, in the Electoral Register, operations that fall under the jurisdiction of the Permanent Electoral Authority, authorized persons shall ensure the update, in the Electoral Register, of the information concerning the Romanian citizens with the right to vote, as well as the information concerning their assignment to the polling stations. Finally, authorized persons shall have access to all the data and information necessary to update the Electoral Register, held by the town hall and the local community public service of the respective administrative-territorial unit.

e. Transparency

PEA publishes real time data in regards of the number of voters that voted on the election days and also the number of votes counted at each polling station. All these ensures a high level of transparency between our institution and the voters.

f. Cybersecurity issues, including risk strategies, protection measures, verification possibilities, and contingency planning

The IT systems and applications, that were used in the parliamentary elections, developed by the Special Telecommunications Service (STS) based on the Decision no. 29/2020, have implemented the blockchain technology. By implementing this technological measure the information was recorded in real time, in clear and HASH type (digital data footprint) and was made public on the website <https://voting.roaep.ro>, which allowed real-time or subsequent verification of the integrity of the relevant data recorded in SIMPV, as well as in SICPV. The blockchain technical solution adopted by PEA ensured:

- *data integrity* through blockchain's immutability, traceability and transparency properties;
- *data confidentiality* - within the framework of the technical solution proposed so that personal data cannot be accessed;
- *records added to the blockchain* log were protected and secured against alteration or deletion by any entity; the block chain was immutable from any subsequent changes in information already sealed with the HASH function;
- *the possibility of verifying the data stored in the blockchain system*;
- *increased confidence* through measures that prohibited the modification of information recorded in the blockchain;
- *the information in the SICPV was collected at the time of insertion of the data* from the minutes into the system. At the same time, the HASH digital footprint was generated for each record so that it can verify their integrity later.

Regarding the Electoral Registry, the access of an authorized person to the Electoral Register shall be done by using the authentication data provided by the Permanent Electoral Authority or by using an extended electronic signature based on a qualified certificate issued by an authorized certification service provider, generated through a secure device for creating signatures, which allows a positive identification of the authorized person. The mayors and the Ministry of Foreign Affairs shall send the list of the persons appointed for authorization to the Permanent Electoral Authority within 45 days from the date of enter into force of this law. Authorized persons shall no longer have access to the Electoral Registry during the suspension of their mandate, of their working or employment relationships or after the termination of their mandate, their working or employment relationships, where appropriate. The cases in which authorized persons are replaced by the mayors shall be notified to the Permanent Electoral Authority within five working days from the date of their occurrence, at the most. Responsibility for ensuring the confidentiality of personal data and the security of data processing in the Electoral Register is incumbent upon the Permanent Electoral Authority, the persons authorized and the persons empowered. The data and information included in the Electoral Registry are meant exclusively for the voting processes.

Decision no. 36/2019 for the approval of the methodological norms regarding the functioning of SIMPV, selection, designation and attributions of computer operators of polling station polling stations, verification of correlations in the minutes of recording results as well as the conditions for audio-video recording of the operations carried out by the members of the polling stations of the polling stations for counting the votes stipulates the fact that the General Directorate for the National Electoral Information System of the Permanent Electoral Authority

(currently Department for computerization of electoral processes), in collaboration with the Special Telecommunications Service, elaborates procedures and instructions on security measures in relation to the management and use of SIMPV, which cover the prohibition of unauthorized persons from accessing SIMPV's computer equipment, securing computer applications and databases to prevent unauthorized reading, copying, modifying or deleting data media, the use of automatic data processing systems, the logging of operations to modify the data in the SIMPV, securing data communications within the SIMPV, the protection of personal data against accidental or unlawful destruction, loss, alteration, disclosure or unauthorized access and against any other form of illegal processing.

In order to carry out the tasks relating to the functioning of the SIMPV, the Special Telecommunications Service adopts technical, operational and procedural measures, with the notification of the Permanent Electoral Authority, in accordance with the principles of *confidentiality* - ensuring access to information only for persons authorized by competencies, *integrity* - ensuring the accuracy and completeness of the information and processing methods, *availability* - ensuring access to information within the requested time limit, *identification* and *authentication* - ensuring the identification and authentication of all duly authorized persons, according to their competences, before any operation and finally *authorization* - authorization of participants to access SIMPV data according to competences.

Moreover the Special Telecommunications Service ensures the recording of phone calls made through the Call Centre and takes measures, with notification to the Permanent Electoral Authority, to prevent alteration or loss of information and to facilitate its recovery in different circumstances.

Decision no. 25/2020 for the approval of the methodological norms regarding the organization and functioning of SICPV mentions that the Department for computerization of electoral processes of the Permanent Electoral Authority will provide the necessary conditions for auditing the security of computer applications on the centralization of voting results, the allocation and assignment of parliamentary and senatorial mandates, as well as making them available to political parties and citizens' organizations belonging to national minorities participating in the elections, at their written request.

In the case of SICPV, the Department for computerization of electoral processes ensures that migrations and seeders for the creation and initialization of the database, the Java client application source code for connecting peripherals and finally ensures that web application source code are made available to political parties and citizens' organizations belonging to national minorities participating in elections. Moreover in the case of the computer application for the allocation and assignment of the mandates, the Department ensures that its source code is made available to political parties and citizens' organizations belonging to national minorities participating in the elections. The Special Telecommunications Service provides electronic signatures qualified by its own certification authority, intended exclusively for members of the Central Electoral Bureau, the presidents of the constituency electoral offices and electoral offices, for the purpose of carrying out their duties under the law.

Finally, the list of specialized staff who will participate in the centralization, data processing of the results of the elections for the Senate and the Chamber of Deputies is approved by decision of the Permanent Electoral Authority, on the proposal of the National Institute of Statistics.

g. Control, enforcement and accountability requirements

According to art. 103, paragraph 1, letter (u) from the *Law no. 208/2015* PEA certifies for proof of non-alteration, ten days before the date of the elections, the computer applications used by the Central Electoral Bureau for the centralization of the results of the voting and it makes them available for the political parties and organizations of citizens belonging to national minorities enlisted in the electoral competition, upon their written request.

h. Issues related to resources and to co-operation with the private sector should be addressed

If so, provide details and comments (how are these issues regulated)

-

3. Are there any plans to extend the used of digital technologies and, if yes, in which stages of the electoral cycle? Can you specify what type of technology is envisaged? And are there any plans for reviewing the relevant regulations or introducing new ones?

Currently the institution is not planning to extend the use of digital technologies.

Nonetheless, PEA considers that technology's forward march is inevitable and its use in the future elections will accelerate. Making the functioning of our institution more robust and efficient and generating greater clarity and transparency regarding election outcomes represent strong arguments to continue to keep pace with modern technology.

4. Have any significant difficulties arisen from the use of digital technologies in specific stages of the electoral cycle in the past? How were these difficulties resolved?

Organizing elections this year, especially during a sanitary crisis represented a complex and, to a certain extent, a challenging process. Nonetheless, PEA has not encountered significant difficulties from any use of digital technologies in any specific stage of the electoral cycles.

5. Has the COVID-19 had an impact in the field of elections? For instance, has it given rise to a public debate on the organization of elections in general or as regards the introduction of new technologies in elections? Have changes in the electoral system been introduced to ensure the organization of elections during the pandemic? If, yes, were these changes introduced considered effective?

The present sanitary crisis generated social and economic challenges and affected both the public and the private life of all the Romanian citizens. The two rounds of elections in Romania, local and parliamentary, were not an exception, the main challenge being the way in which constitutional rights and individual freedoms could have been exercised safely, thus limiting the risk of infection. The COVID-19 pandemic has determined the authority to digitalize more the process of training of the electoral staff, since the number of people that were required to be trained for the elections that we had during this pandemic was of more than 50,000 people, spread nationwide. Because of the restrictions imposed by the government

we were not able to conduct in time all training in person, therefore we had to implement online training for our electoral staff. This led to a more fast and efficient way of training of our electoral staff.

With concerns regarding public health emergencies, arrangements in polling stations followed a generic format. PEA made considerable planning and preparations in advance in order to respond to the challenges generated by the COVID-19 pandemic. The decisions, the regulations drafted by PEA and the joint Order of the Minister of Health and the Minister of Internal Affairs No. 1484/130 regarding the public health measures for the safe conduct of public events, meetings or actions related to the election campaign and the Joint Order of the Minister of Health and the Minister of Internal Affairs No.1594/140 regarding information on measures and actions concerning the exercise of the right to vote in local elections in 2020 created the framework for organizing elections during the sanitary crisis. The secondary legislation established the obligations for mayors and prefects to provide protective equipment and sanitary conditions in the pooling stations.

6. What are the regulations applying to procurement as regards the provision of digital technologies by private companies?

No specific rules have been established for the electoral system.

7. Are resources made available for the use of digital technologies adequate?

In order to be able to obtain the best results PEA is carefully analyzing all the necessary means in order to have sufficient resources for the use of digital technologies. The institution acknowledges the fact that all the digital solutions require qualified human resources and financial incentives in order to ensure an adequate framework that can facilitate the introduction of new technological features and other modifications, and to enable its proper functioning.

8. Would you find an added value in greater exchange of information/guidance in this area, at international level?

Taking into account the growing importance of the use of digital technologies in a lot of sectors of the society, including the electoral field, we foresee that exchange of information in this domain would be a key component of the international cooperation. We see the merit of such action and we believe that once a convenient exchange instrument is identified at the international level, all interested parties could exchange best practices, lessons learned, challenges and encountered problems, in order to make use of all the advantages offered by the digital technologies in the process of planning and organizing elections. Moreover, we consider that this exchange would contribute to raising awareness of the importance of using such digital technologies in this area, increasing knowledge, growing goodwill and in the same time developing relations and making new contacts at the international level.

9. Is there any additional information that you would like to provide, in relation to any stage of electoral cycle?

—

10. Additional specific aspects on which delegations may want to provide information:

a. Does the EMB hire and involve personnel with a background in computer-science, engineering or a related field at drafting regulations, guidelines, contracts and procedures? What is their mission?

For the elaboration, implementation and operationalization of computer systems and applications used in electoral processes PEA can employ qualified information technology personnel and contract staff under individual employment contracts for a specified period of time. This staff is employed as specialists in information and communication technology and established within the departments of the Permanent Electoral Authority. The number of positions relating to the functions of information and communication technology specialists, the selection criteria and methodology and the conditions under which this category of staff operates is approved by order of the President of the Permanent Electoral Authority.

b. How are the systems, the operational infrastructure as well as the operational and maintenance procedures scrutinized? Is public scrutiny supported for example by publishing the source code of custom software? What are the roles of the EMB and other organizations (e.g. organizations on lower levels of government) at enforcing compliance with security-sensitive requirements?

—

c. Are there any system-independent procedures defined to verify the correctness of critical data held and computations performed by the systems in question (e.g. digitalized votes, counting, tabulation, election, results, voter register)?

PEA certifies for proof of non-alteration, ten days before the date of the elections, the computer applications used by the Central Electoral Bureau for the centralization of the results of the voting and it makes them available for the political parties and organizations of citizens belonging to national minorities enlisted in the electoral competition, upon their written request.

SERBIA

QUESTIONNAIRE

When examining your replies, the Secretariat of the CDDG may need to contact you for further enquiries or clarifications. To that end, we would appreciate that you provide your contact details:

Author of the reply

- Country: Republic of Serbia
- Organisation / Election Management Body (EMB): Ministry of Public Administration and Local Self Government
- Name: Dara Gravara Stojanović
- Position / Function: Head of eGovernment Department
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- Phone number: +381603300659

Questions

1. In which stages of the electoral cycle are digital technologies used (see the attached paper by Ms Ardita Driza Maurer)? What kind of digital technologies are used? Does the use of digital technologies in the electoral cycle follow an overall digitisation strategy?

Answer: The development of e-Government is a priority for the Government of the Republic of Serbia and a key pillar of public administration reform planned by the Public Administration Reform Strategy in the Republic of Serbia¹.

The Strategy for e-Government in the Republic of Serbia for the period 2015-2018 ("Official Gazette of RS", no. 107/15), as a strategic framework of e-governance area in the past, established the basic goals and priorities of e-Government in the Republic of Serbia. A new E-Government Development Programme with Action plan adopted in June 2020² for the period from 2020 to 2022 should ensure efficient coordination and project management and implementation of the measures in the field of e-government development in order to improve the quality of public services in the Republic of Serbia.

Specific objectives set out for the period 2020-2022 are : (1) to develop eGovernment infrastructure and ensure interoperability, (2) to improve legal certainty in the use of eGovernment, (3) to increase availability of eGovernment to citizens and businesses by improving digital services, (4) open data in eGovernment.

The e-Government Development Programme 2020–2022 with the Action plan (hereinafter: Programme), is one of the first public policy documents adopted in accordance with the new Law on the Planning System of the Republic of Serbia.

The Programme is aligned with the principles set out in the European eGovernment Action Plan 2016-2020 and the Tallin Declaration on eGovernment including its Annex "User-centricity principles for design and delivery of digital public services".

¹ The Official Gazette of the Republic of Serbia, No. 42/2014.

² <http://mduls.gov.rs/saopstenja/usvojen-program-razvoje-e-uprave-2020-2022-300-novih-elektronskih-usluga-i-servisa-za-gradjane-i-privredu/?script=lat>

The Council of Europe has long taken the lead on digital policies relating to government action as exemplified by the Committee of Ministers Recommendation Rec (2004)15 on electronic governance and Recommendation Rec(2004)11 on legal, operational and technical standards for e-voting. The CoE Recommendation CM/Rec(2009)1 provides a political and practical instruments for use by all organisations that are introducing, implementing and reviewing e-democracy.

2. How are the following issues addressed in regulations, guidelines, contracts or internal procedures of or applicable to the Election Management Body (EMB) or their partner organisations:

- i. Human rights-centred use of Information and Communication Technology (ICT) in the electoral field
- j. Detailed requirements stemming from human rights are necessary to regulate the use of ICT in elections
- k. Usability of ICT
- l. The interplay of data protection and requirements relating to the secrecy of the vote
- m. Transparency
- n. Cybersecurity issues, including risk strategies, protection measures, verification possibilities, and contingency planning
- o. Control, enforcement and accountability requirements
- p. Issues related to resources and to co-operation with the private sector should be addressed.

If so, provide details and comments (how are these issues regulated)?

Answer: In order for the public administration to efficiently, effectively and professionally respond to the needs of citizens and provide quality public services in accordance with the principles and standards of "good governance", a part of the reform activities is also the increase in transparency of its work and the improvement of ethical standards and responsibility in the performance of public affairs administration.

Active participation of citizens in the formulation and implementation of public policies is one of the key assumptions of the transparent work of the administration. In the Republic of Serbia, the obligations of the public to the work of the bodies and public administration organizations, as well as the right of the public to access information of public importance, have been established. In accordance with the general principle that the quality of public policies depends on the provision of public participation throughout the decision-making process, from the definition of the policy concept to its implementation, the amendments to the Law on State Administration and the Law on the Planning System, the process of conducting general consultations is foreseen before the public discussion, in the process of passing regulations.

In order to improve access to the election process, the Ministry of Public Administration and Local Self-Government enabled all citizens to blind and partially sighted people through instructions in an audio file on the portal <https://upit.birackispisak.gov.rs>. check whether they are registered to vote.

To see the voter list, blind and partially sighted people, with the help of a screen reader, after entering the ID number, and before the search option, enter the code from the picture.

The platform for checking the registration in the voter list was improved on the recommendation of the Center for Independent Living of Persons with Disabilities in Serbia.

- 3.** Are there any plans to extend the use of digital technologies and, if yes, in which stages of the electoral cycle? Can you specify what type of technology is envisaged? And are there any plans for reviewing the relevant regulations or introducing new ones?

Answer: The development of e-Government is a priority for the Government of the Republic of Serbia and key pillar of public administration reform planned by the Public Administration Reform Strategy in the Republic of Serbia³. In June 2020 the Government adopted the E-government Development Programme for the period from 2020 to 2022 as a public policy document outlining the plan of the Government of the Republic of Serbia for the development of electronic government for the said period. The Action Plan for the Implementation of the e-Government Development Programme 2020–2022 of the Republic of Serbia recognises the importance of the establishment of the e-democracy in the Republic of Serbia. In this regard under the measure 4.4. of the AP drafting of the procedure for implementing e-Democracy with the aim of optimising resource utilisation and development of services is envisaged. E-democracy concerns all stakeholders involved in and benefitting from democracy such as public authorities and their representatives, political institutions, individuals, NGOs and civil society at large, including media and the business community.

- 4.** Have any significant difficulties arisen from the use of digital technologies in specific stages of the electoral cycle in the past? How were these difficulties resolved?

A: /

- 5.** Has the COVID-19 pandemic had an impact in the field of elections? For instance, has it given rise to a public debate on the organisation of elections in general or as regards the introduction of new technologies in elections? Have changes in the electoral system been introduced to ensure the organization of elections during the pandemic? If yes, were these changes introduced considered effective?

Answer: Due to the COVID-19, the parliamentary elections have been postponed

- 6.** What are the regulations applying to procurement as regards the provision of digital technologies by private companies?

Answer: The Law on public procurement⁴

- 7.** Are resources made available for the use of digital technologies adequate?

Answer: What kind of resource is meant in this question? Not clearly defined.

³ *The Official Gazette of the Republic of Serbia*, No. 42/2014.

⁴ <https://www.paragraf.rs/propisi/zakon-o-javnim-nabavkama.html>

8. Would you find an added value in greater exchange of information/ guidance in this area, at international level?

Answer: The Republic of Serbia does not have regulated e-democracy framework. The new strategic framework for further development of e-government recognizes the need for creating a basis for introduction of the e-democracy in the Republic of Serbia.

Namely, and in line with the AP for implementation of the E-government Development Programme procedures for implementing e-Democracy with the aim of optimising resource utilisation and development of services should be developed until Q4 2021.

There is no general or separate analyses of the legal framework that regulates particular segments of the eDemocracy in the RS. Initial step on this path should be the analysis of the valid legal framework in the Republic of Serbia in order to identify gaps in regulating all aspects of e-democracy in the Republic of Serbia. Based on the conducted legal analysis set of recommendations for introducing of e-democracy should be developed. There is no specific strategic or any other public policy document which comprehensively elaborates introduction of the e-democracy in the Republic of Serbia. Therefore greater exchange of information/guidance in this area, at international level should provide support in preparation of the comprehensive Policy paper for establishment of the e-democracy in the RS, as well as the roadmap that will clearly elaborate steps on the demanding path for introduction of the e-democracy.

The future policy paper should be based on the following principles and acknowledged EU standards in this area. In that regard, E-democracy encompasses, e-parliament, e-legislation, e-justice, e-mediation, e-environment, e-election, e-referendum, e-initiative, e-voting, e-consultation, e-petitioning, e-campaigning, e-polling and e-surveying; it makes use of e-participation, e-deliberation and e-forums. The future policy paper should define, inter alia, the, current situation in the field, mission, vision, objective, stakeholder analysis, measures, as well as clear guidelines in establishing each separate aspect of the e/democracy in the Republic of Serbia.

Since the E-democracy can be implemented with varying degrees of complexity, in different types of democracy and at different stages in the development of democracy the future policy paper should elaborate potential models of introduction of this concept into the system of the RS. Based on the selected model the roadmap with concrete steps in introducing the concept will be developed. It is not linked to, and does not lead to, a specific type of democracy. In particular, e-democracy can, through new technology, attract young people to democracy, democratic institutions and democratic processes. NGOs can both benefit from e-democracy and at the same time provide a testing ground for e-democracy for citizens. E-democracy can be of particular benefit to regions that cut across national borders and encompass territorial political entities from different countries, to their institutions, and to persons living in different countries and sharing the same linguistic or cultural identity. It can facilitate the participation and decision-making processes of international institutions. Public authorities can benefit from discussions and initiatives concerning e-democracy activities developed by civil society and from co-operation with civil society in this field.

9. Is there any additional information that you would like to provide, in relation to any stage of the electoral cycle?

Answer : The goals of e-democracy—which are similar to those of good governance – are transparency, accountability, responsiveness, engagement, deliberation, inclusiveness, accessibility, participation, subsidiarity, trust in democracy, democratic institutions and democratic processes, and social cohesion. Trust is indispensable for any type of e-

democracy, at all stages and phases. It is closely related to accessibility, transparency and responsiveness. E-democracy makes for greater individual and group participation, allows those whose voices are heard less often or are less powerful to express their views, and fosters participation on an equal footing. It can lead to more participatory forms of decision making and democracy. E-participation is the support and enhancement of democratic participation and encompasses those sectors of e-democracy where civil society and businesses are involved in drawing up formal and informal agendas and shaping and taking decisions. E-democracy does not in itself affect the constitutional and other duties and responsibilities of decision makers; it can provide them with additional benefits.

10. Additional specific aspects on which delegations may want to provide information:

- d. Does the EMB hire and involve personnel with a background in computer-science, engineering or a related field at drafting regulations, guidelines, contracts and procedures? What is their mission?
- e. How are the systems, the operational infrastructure as well as the operational and maintenance procedures scrutinized? Is public scrutiny supported for example by publishing the source code of custom software? What are the roles of the EMB and other organisations (e.g. organisations on lower levels of government) at enforcing compliance with security-sensitive requirements?
- f. Are there any system-independent procedures defined to verify the correctness of critical data held and computations performed by the systems in question (e.g. digitalised votes, counting, tabulation, election results; voter register)?

Answer: National Assembly-Elections and Electoral System

Election of MPs is announced by the President of the Republic, ninety days before the expiration of the mandate of the National Assembly, so that the election can be completed within the following sixty days.

MPs are elected in the Republic of Serbia as one electoral unit, by use of proportional electoral system, by voting for election lists, and by distribution of MPs mandates in proportion with the number of votes that the lists received.

The election is conducted by the Republic Electoral Commission and electoral committees. Members of the Republic Electoral Commission and their deputies are appointed for a period of four years, while members of electoral committees and their deputies are appointed for each election.

Every able-bodied citizen of the Republic of Serbia who is eighteen years of age and officially resides in the Republic of Serbia has the right to elect MPs and be elected as MP.

No one has the right, on any grounds, to prevent a citizen from voting or force a citizen to vote, to hold him/her responsible for having voted, and to request that a citizen state for whom he/she voted or why he/she failed to vote.

Registered political parties, coalitions of political parties, and citizens' groups are allowed to submit election lists of candidates for MPs.

The election list can include no more than 250 candidates, since this is the number of MPs to be elected.

After every third candidate in order (first three places, second three places and so on to the end of the list) the election list must contain at least one candidate of the less represented gender on the list, meaning that the election lists must include no fewer than 33% of candidates of the less represented gender (on the list).

The election list is forwarded to the Republic Electoral Commission no later than fifteen days prior to the day of the election.

The election list must be accompanied by a minimum of 10,000 court-certified statements of constituents supporting the election list with their signatures.

No later than five days before the day of the election, each voter is forwarded the following information: date and time of election, address and number of the polling station where he/she should vote, and the number under which he/she is recorded in the excerpt from the list of voters.

On the day of the election, polling stations open at 7:00 in the morning, closing at 8.00 in the evening. During these hours, polling stations must remain open at all times. The voter can vote only for one election list on the ballot. To cast a vote, he/she should circle the sequence number written before the title of the selected election list. Results of the election are announced by the Republic Electoral Commission within a period of ninety-six hours from the completion of the voting. Results of the election are announced in "The Official Gazette of the Republic of Serbia". Each election list is entitled to the number of mandates that is proportional to the number of received votes.

Only election lists that received a minimum of 5% of votes of the total number of voters who had voted are allowed to participate in the distribution of MPs' mandates. Political parties of national minorities represent the exception; they are allowed to participate in the distribution of MPs' mandates regardless of the number of votes that they received.

Mandates are distributed by use of method of highest quotients (the so-called D' Hondt system); the total number of votes received by each individual election list is divided by numbers from 1 to 250. Obtained quotients are classified by size, and 250 highest quotients are used.

Each election list receives the number of mandates equal to the number of highest quotients (to which the list is entitled) that appear within the 250 highest ones.

The candidates on the election list are awarded MPs mandates according to their order of presentation, starting from the first candidate on the list. The Republic Electoral Commission allocates the MPs mandates no later than 10 days after the publication of the election results, after which it creates a report on the conducted election and submits it to the National Assembly.

On the basis of the report of the Republic Electoral Commission on the conducted election, mandates of MPs are verified at the first session of the National Assembly convened by the Speaker of the previous composition of the National Assembly. The session should be held no later than thirty days from the day of the announcement of final results of the election.

The new composition of the National Assembly is constituted when no fewer than two thirds of MPs' mandates are verified; the mandate of the previous composition of the National Assembly ceases.

Dissolution of the National Assembly and the announcement of the election of MPs

The National Assembly is dissolved if it fails to appoint a Government within the period of ninety days from the day of its constitution, or if the Government proposes the dissolution of the National Assembly to the President of the Republic.

The Government cannot propose the dissolution of the National Assembly if a proposal that the Government be voted out of power has already been submitted, or if the Government itself has raised this issue. The National Assembly cannot be dissolved during the period of war or during an emergency situation.

The President of the Republic must dissolve the National Assembly by decree in cases provided in the Constitution.

Simultaneously with the dissolution of the National Assembly the President of the Republic calls the election for MPs so that the election can be completed no later than sixty days after the announcement.

For more information visit the website of [the Republic Electoral Commission](#).

Single Electoral Roll

The Single Electoral Roll is a public document where single records are kept of nationals of the Republic of Serbia eligible to vote. The Single Electoral Roll is kept as an electronic database and is updated on a regular basis by municipal and city administrations as a delegated duty under the Law on the Single Electoral Roll. Updating of the Electoral Roll includes changes made *ex officio* or on request from citizens. Any change in the Electoral Roll is based on a relevant decision, namely a decision on registration, deletion or change, supplementation or correction of a fact relating to a voter on the Electoral Roll. Registration with the Electoral Roll is prerequisite for the exercise of the right to vote and each voter can be registered with the Electoral Roll only once. The following persons are registered with the Electoral Roll:

- Nationals of the Republic of Serbia of legal age with the capacity to contract, i.e. persons with the right to vote – according to their place of residence; at voter's request, his/her temporary residence address in the country may also be recorded;
- Voters who reside abroad – according to their most recent place of residence before moving abroad or according to the most recent place of residence of one of their parents; in this case, the voter's temporary residence address abroad must also be recorded;
- Internally displaced persons – according to the place where they are registered as internally displaced persons.

The Electoral Roll contains the following details of voters: name and surname of the voter, name of one of voter's parents, voter's unique personal identification number, date and place of voter's birth, voter's sex, place and address of voter's residence, local self-government unit in which the voter resides, foreign country where the voter temporarily resides, place and address of voter's temporary residence abroad and place of voter's residence in case of internally displaced persons.

The name and surname of a voter who is a member of a national minority is written first in Cyrillic letters based on the Serbian spelling and then in the script and spelling of the language of the relevant national minority.

Every citizen has the right to consult the Electoral Roll in order to verify their personal information. The Electoral Roll may be consulted in person at the municipal or city administration of the voter's residence or electronically at <https://birackispisak.mduls.gov.rs/javniportal>

Citizens apply for changes to the Electoral Roll to the municipal or city administration of their residence. Any change in the Electoral Roll must be based on data contained in civil records, other official records and public documents (e.g. excerpts from registries of births, marriages and deaths, identity card, proof of residence, certificate of citizenship, valid and enforceable decision restoring the capacity to contract), on which the relevant decision is passed by the municipal or city administration concerned if the application is made before the closing of the Electoral Roll (15 days before the election day) or by the Ministry if the application is made from the date of closing of the Electoral Roll until 72 hours before the election day.

The applicant may appeal the decision of the municipal or city administration with the Ministry of Public Administration and Local Self-Government within 24 hours of the date of receipt of such decision, while a complaint against the Ministry's decision may be filed with the Administrative Court within 24 hours of the date of receipt of such decision.

SLOVAK REPUBLIC

QUESTIONNAIRE

When examining your replies, the Secretariat of the CDDG may need to contact you for further enquiries or clarifications. To that end, we would appreciate that you provide your contact details:

Author of the reply

- Country: Slovak Republic
- Organisation / Election Management Body (EMB): Ministry of Interior
- Name: Martin Gajdoš
- Position / Function: General State Advisor
- E-mail: martin.gajdos5@minv.sk
- Phone number: +421 2 4859 2317

Questions

1. In which stages of the electoral cycle are digital technologies used (see the attached paper by Ms Ardita Driza Maurer)? What kind of digital technologies are used? Does the use of digital technologies in the electoral cycle follow an overall digitisation strategy?

Digital technologies are used in transmission and tabulation of voting results from the manual counting at polling stations to central entities where they are consolidated, counted and published. Digital technologies used are basic, such as internet and special electoral software for tabulation and transmission. No "new technologies" are used in the electoral process yet.

2. How are the following issues addressed in regulations, guidelines, contracts or internal procedures of or applicable to the Election Management Body (EMB) or their partner organisations:

- q. Human rights-centred use of Information and Communication Technology (ICT) in the electoral field
- r. Detailed requirements stemming from human rights are necessary to regulate the use of ICT in elections
- s. Usability of ICT
- t. The interplay of data protection and requirements relating to the secrecy of the vote
- u. Transparency
- v. Cybersecurity issues, including risk strategies, protection measures, verification possibilities, and contingency planning
- w. Control, enforcement and accountability requirements
- x. Issues related to resources and to co-operation with the private sector should be addressed.

If so, provide details and comments (how are these issues regulated)?

These issues are not yet addressed in our electoral laws, regulations, guidelines etc. Some of them are regulated in general in other legislation, but not directly related to the electoral process.

- 3.** Are there any plans to extend the use of digital technologies and, if yes, in which stages of the electoral cycle? Can you specify what type of technology is envisaged? And are there any plans for reviewing the relevant regulations or introducing new ones?

In September 2020, interdepartmental working group was created at Ministry of Interior with a goal to draw up an analysis of security risks of electronic voting from abroad for the citizens of the Slovak Republic. Members of the working group are currently drawing up mentioned analysis for consideration and possible adoption by the Government.

At the same time, Ministry of Interior is currently working on the digital solution for the registration for the election by mail in the form of online application.

- 4.** Have any significant difficulties arisen from the use of digital technologies in specific stages of the electoral cycle in the past? How were these difficulties resolved?

N/A

- 5.** Has the COVID-19 pandemic had an impact in the field of elections? For instance, has it given rise to a public debate on the organisation of elections in general or as regards the introduction of new technologies in elections? Have changes in the electoral system been introduced to ensure the organization of elections during the pandemic? If yes, were these changes introduced considered effective?

Public and expert discussions about the COVID-19 pandemic in connection to elections are being held, but no changes to our electoral laws has been introduced yet.

- 6.** What are the regulations applying to procurement as regards the provision of digital technologies by private companies?

N/A

- 7.** Are resources made available for the use of digital technologies adequate?

We did not encounter any issues regarding availability of resources.

- 8.** Would you find an added value in greater exchange of information/ guidance in this area, at international level?

Yes, we always find an added value in exchange of information and guidance at international level, especially in this area.

- 9.** Is there any additional information that you would like to provide, in relation to any stage of the electoral cycle?

N/A

10. Additional specific aspects on which delegations may want to provide information:

- g. Does the EMB hire and involve personnel with a background in computer-science, engineering or a related field at drafting regulations, guidelines, contracts and procedures? What is their mission?

No, it does not.

- h. How are the systems, the operational infrastructure as well as the operational and maintenance procedures scrutinized? Is public scrutiny supported for example by publishing the source code of custom software? What are the roles of the EMB and other organisations (e.g. organisations on lower levels of government) at enforcing compliance with security-sensitive requirements?

There is no public scrutiny of software for transmission and tabulation of voting results, such as publishing of the source code.

- i. Are there any system-independent procedures defined to verify the correctness of critical data held and computations performed by the systems in question (e.g. digitalised votes, counting, tabulation, election results; voter register)?

N/A

SLOVENIA

QUESTIONNAIRE

When examining your replies, the Secretariat of the CDDG may need to contact you for further enquiries or clarifications. To that end, we would appreciate that you provide your contact details:

Author of the reply

- Country: [Slovenia](#)
- Organisation / Election Management Body (EMB): [Ministry of Public Administration](#)
- Name: [Helena Kavčič](#)
- Position / Function: [Undersecretary](#)
- E-mail: helena.kavcic@gov.si
- Phone number: [+38614781682](#)

Questions

1. In which stages of the electoral cycle are digital technologies used (see the attached paper by Ms Ardita Driza Maurer)? [We already use the digital technologies in the registration process \(with regard to the process of registration, a Register of Voting Rights gathers data directly from the Central Register of Inhabitants\) and for the counting.](#) What kind of digital technologies are used? [The digital solutions used are based on multilevel web technologies. All solutions are installed centrally within the national computing center, managed by authorized and trained experts.](#) Does the use of digital technologies in the electoral cycle follow an overall digitisation strategy? [No.](#)

2. How are the following issues addressed in regulations, guidelines, contracts or internal procedures of or applicable to the Election Management Body (EMB) or their partner organisations: [The use of ICT is not regulated in law yet, there are just guidelines of the EMB on the use of specific ICT tools regarding use of it in registration - ICT is used in the compilation of electoral registers and when voters inform electoral bodies that they want to exercise special methods of exercising the right to vote \(voters communicate their intention through e-government\) and counting process.](#)
 - y. Human rights-centred use of Information and Communication Technology (ICT) in the electoral field
 - z. Detailed requirements stemming from human rights are necessary to regulate the use of ICT in elections
 - aa. Usability of ICT
 - bb. The interplay of data protection and requirements relating to the secrecy of the vote
 - cc. Transparency
 - dd. Cybersecurity issues, including risk strategies, protection measures, verification possibilities, and contingency planning

- ee. Control, enforcement and accountability requirements
- ff. Issues related to resources and to co-operation with the private sector should be addressed.

If so, provide details and comments (how are these issues regulated)?

3. Are there any plans to extend the use of digital technologies and, if yes, in which stages of the electoral cycle? The SEC and the MPA are establishing a unified information system (isDVK) for elections, which will enable effective support for electoral tasks for the efficient and rational conduct of elections and referendums. Uniform information support, harmonized with the current legislation, will enable efficient and more rational conduct of elections and referendums, support of the procedures of electoral tasks of SEC and electoral commissions, support of administrative procedures for election preparation, greater efficiency of electoral bodies and greater transparency of elections. Can you specify what type of technology is envisaged? And are there any plans for reviewing the relevant regulations or introducing new ones? We are currently preparing an amendment to the Local Elections Act in which we will determine the legal basis for possibility of connecting the list of candidates prepared by municipal electoral commissions in the registration procedure with the register of voting rights to make this part of the process easier and faster.
4. Have any significant difficulties arisen from the use of digital technologies in specific stages of the electoral cycle in the past? How were these difficulties resolved? No significant issues arisen from the use of ICT in electoral procedures.
5. Has the COVID-19 pandemic had an impact in the field of elections? For instance, has it given rise to a public debate on the organisation of elections in general or as regards the introduction of new technologies in elections? Have changes in the electoral system been introduced to ensure the organization of elections during the pandemic? If yes, were these changes introduced considered effective? There were no changes done in electoral system during and regarding the pandemic and currently there have been no plans to do so in the future. Local elections and referendums are being executed with organisational and hygienic adaptation due to health hazard at polling stations.
6. What are the regulations applying to procurement as regards the provision of digital technologies by private companies? There are no such regulations.
7. Are resources made available for the use of digital technologies adequate? Yes.
8. Would you find an added value in greater exchange of information/ guidance in this area, at international level? Question on potential e-voting is a question of confidence and trust which is directly connected to technical issues, that is - everything has to operate perfectly, there must be a guarantee for the citizens that no error will occur. In Slovenia, 2/3 absolute majority is needed for any amendments to the Electoral Law regulating the National Assembly elections. Therefore any amendment in the direction of e-voting would necessitate a high political consensus for adoption.

9. Is there any additional information that you would like to provide, in relation to any stage of the electoral cycle?
No.
10. Additional specific aspects on which delegations may want to provide information:
- j. Does the EMB hire and involve personnel with a background in computer-science, engineering or a related field at drafting regulations, guidelines, contracts and procedures? EMB also closely cooperates with the professionals at the aforementioned national computing centre, organised within the Ministry of Public Administration. The purpose of that cooperation is the use of the knowledge and experience of experts in computing, since those experts understand both - the need for prompt and correct digitalised support of the process of calculation of the results and also the need for their transparent presentation to the public. What is their mission? Their mission is providing a computer programs and IT support for electoral tasks and administrative procedures for each election / referendum.
 - k. How are the systems, the operational infrastructure as well as the operational and maintenance procedures scrutinized? Procedures (of supporting the voter registers, calculating the results and publishing results) are scrutinised by the same high standards, by which is scrutinised the whole national computing centre, and that includes high standards in organising the centre as well as regular and irregular surveillance of procedures and machines that enable its operation. Is public scrutiny supported for example by publishing the source code of custom software? Public oversight has not been open so far, as these are systems that only support the electoral bodies in certain tasks, but the source code of « isDVK» will be made public. What are the roles of the EMB and other organisations (e.g. organisations on lower levels of government) at enforcing compliance with security-sensitive requirements? None.
 - l. Are there any system-independent procedures defined to verify the correctness of critical data held and computations performed by the systems in question (e.g. digitalised votes, counting, tabulation, election results; voter register)? No.

SPAIN

QUESTIONNAIRE

When examining your replies, the Secretariat of the CDDG may need to contact you for further enquiries or clarifications. To that end, we would appreciate that you provide your contact details:

Author of the reply

- Country: SPAIN
- Organisation / Election Management Body (EMB): Ministry of Territorial Policy and Civil Service. (N.B. The Ministry of the Interior has provided updated information in order to fulfil this questionnaire).
- Name: Ana Cristina López
- Position / Function: Joint Deputy Director General of European and International Relations.
- E-mail: acristina.lopez@correo.gob.es
- Phone number: 0034 671223214

Questions

1. In which stages of the electoral cycle are digital technologies used (see the attached paper by Ms Ardita Driza Maurer)? What kind of digital technologies are used? Does the use of digital technologies in the electoral cycle follow an overall digitisation strategy?

Digital technologies are used in all stages of the electoral cycle, except for the casting of the votes and the counting of the votes, which, as the electoral law establishes, has to be manual. (N.B.: e-voting is not regulated or planned to be regulated.)

The use of digital technologies has been introduced over the years following several public administration modernization strategies.⁵

Thus, the ICT strategy named: Plan for the Digital Transformation of the General State Administration and its Public Bodies (2015-2020), incorporates the recommendations of the OECD for the elaboration of digital administration strategies and is fed by the close relationship with the acts, policies and services of the European Union, aligning itself with the digital agenda for Spain and the new strategy of the European Commission for the Digital Single Market. It is also an instrument for the application of the Law 39/2015, of October 1, on the Common Administrative Procedure of Public Administrations, and the Law 40/2015, of October 1, on the Legal System of the Public Sector.

⁵ https://administracionelectronica.gob.es/pae_Home/pae_Estrategias.html

At this moment, the current strategy is España Digital 2025 (Ministry of Economy and Digital Transformation), which includes an specific chapter on Public Sector Digital Transformation.⁶

Evaluation reports are issued on annual basis ⁷: after the last normative modification by means of Royal Decree 806/2014, of September 26, the Commission of Strategy TIC is created, to which corresponds him among others, the function of "acting as Observatory of the Electronic Administration and Digital Transformation" taking the relief to the Superior Council of Electronic Administration. To this end, the ICT Strategy Commission carries out the collection of "information on technological, human, economic and contracting resources related to information technologies" and publishes periodic reports presenting the results of these studies in the Electronic Administration Portal.⁸

2. How are the following issues addressed in regulations, guidelines, contracts or internal procedures of or applicable to the Election Management Body (EMB) or their partner organisations:

gg. Human rights-centred use of Information and Communication Technology (ICT) in the electoral field.

There is no specific regulation on this matter (Human rights centred use of ICTs)

hh. Detailed requirements stemming from human rights are necessary to regulate the use of ICT in elections.

There is no specific regulation on this matter (Human rights centred use of ICTs)

ii. Usability of ICT.

-Royal Decree 4/2010, of 8 January, which regulates the National Interoperability Scheme in the field of Electronic Administration / Real Decreto 4/2010, de 8 de enero, por el que se regula el Esquema Nacional de Interoperabilidad en el ámbito de la Administración Electrónica.

- Royal Decree 1112/2018 of 7 September on the accessibility of websites and applications for public sector mobile devices /Real Decreto 1112/2018, de 7 de septiembre, sobre accesibilidad de los sitios web y aplicaciones para dispositivos móviles del sector público.

⁶ https://www.lamoncloa.gob.es/presidente/actividades/Documents/2020/230720-Espa%C3%B1aDigital_2025.pdf

⁷ https://administracionelectronica.gob.es/pae_Home/pae_OBSAE/pae_Informes/pae_InformeREINA/pae_InfDes_carga.html

⁸ https://administracionelectronica.gob.es/pae_Home/?idioma=en

- jj. The interplay of data protection and requirements relating to the secrecy of the vote

The electoral law (Ley Orgánica 5/1985, de 19 de junio, del régimen electoral general) regulates everything related to the lists of the electoral census⁹ and the lists of voters (the latter are drawn up on the day of voting by the members of the polling stations: citizens elected by draw by the plenary session of the Town Halls from among the persons included in the electoral census), which must be included among the electoral documentation sent to the Electoral Administration (Electoral Commissions).

- kk. Transparency:

- The electoral law (Ley Orgánica 5/1985, de 19 de junio, del régimen electoral general) sets that the Central Electoral Commission, as well as the lower level Electoral Commissions, have to safeguard and guarantee the transparency of the electoral process.

-Law 19/2013, of December 9, on Transparency, Access to Public Information and Good Governance / Ley 19/2013, de 9 de diciembre, de Transparencia, Acceso a la Información Pública y Buen Gobierno.

- ll. Cybersecurity issues, including risk strategies, protection measures, verification possibilities, and contingency planning

The National Security Scheme (Esquema Nacional de Seguridad-ENS) aims to establish the security policy in the use of electronic means.

The ENS is regulated by Royal Decree 3/2010, of 8 January, which regulates the National Security Scheme in the field of Electronic Administration¹⁰ (as amended by Royal Decree 951/2015).

- mm. Control, enforcement and accountability requirements

For the management of the electoral budget (Ministry of the Interior) computer tools and applications are used that facilitate this management and its control by the bodies responsible for the verification of accounts (Ministry of Finance, Central Electoral Commission and Court of Audit).

- nn. Issues related to resources and to co-operation with the private sector should be addressed.

In electoral matters, the relationship with the private sector is limited to contracting the necessary services not available to the Public Administration.

If so, provide details and comments (how are these issues regulated)?

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<https://www.ine.es/ss/Satellite?c=Page&p=1254735788994&pagename=CensoElectoral%2FINELayout&cid=1254735788994&L=1>

¹⁰ <https://www.boe.es/eli/es/rd/2010/01/08/3/con>

3. Are there any plans to extend the use of digital technologies and, if yes, in which stages of the electoral cycle? Can you specify what type of technology is envisaged? And are there any plans for reviewing the relevant regulations or introducing new ones?

There are no plans to implement the use of new technologies beyond what is currently being done, except to facilitate some documentation request processes that currently still need to be done in person.

4. Have any significant difficulties arisen from the use of digital technologies in specific stages of the electoral cycle in the past? How were these difficulties resolved?

No.

5. Has the COVID-19 pandemic had an impact in the field of elections? For instance, has it given rise to a public debate on the organisation of elections in general or as regards the introduction of new technologies in elections? Have changes in the electoral system been introduced to ensure the organization of elections during the pandemic? If yes, were these changes introduced considered effective?

During the COVID-19 pandemic, elections were held in the Autonomous Communities of Galicia and the Basque Country (July 2020). In these regional elections, in addition to the measures mainly aimed at reinforcing health security on election day at polling stations (avoiding crowding at polling stations and distributing COVID-19 protection health material at the electoral boards -where votes were cast-), the Central Electoral Commission allowed the request for postal voting documentation to be done at the Post Office website, by means of an electronic signature, provided that the guarantees established in Articles 9 and 10 of Law 39/2015 of 1 October on the Common Administrative Procedure of Public Administrations are met.¹¹

6. What are the regulations applying to procurement as regards the provision of digital technologies by private companies?

There are no specific requirements beyond those of public procurement and those derived from the fact that suppliers must comply with the requirements of the National Security Scheme (ENS).

7. Are resources made available for the use of digital technologies adequate?

Yes, there are.

8. Would you find an added value in greater exchange of information/ guidance in this area, at international level?

Yes, indeed, it is of great interest.

¹¹

http://www.juntaelectoralcentral.es/cs/jec/doctrina/acuerdos?anyosesion=2020&idacuerdoinstruccion=72303&idsesion=971&template=Doctrina/JEC_Detalle

9. Is there any additional information that you would like to provide, in relation to any stage of the electoral cycle?

There is no additional IT-related information to add.

10. Additional specific aspects on which delegations may want to provide information:

- m. Does the EMB hire and involve personnel with a background in computer-science, engineering or a related field at drafting regulations, guidelines, contracts and procedures? What is their mission?

Public Administration has personnel specialized in information technologies that collaborate in all the aspects that have to do with these in their use in the electoral processes. In those aspects where there are not enough staff, the corresponding contracts are tendered, but only when and where it is necessary to complement the work of the Public Administration's own staff. In this contracting, no specific measures are required or different from those common to the contracting of public administrations.

- n. How are the systems, the operational infrastructure as well as the operational and maintenance procedures scrutinized? Is public scrutiny supported for example by publishing the source code of custom software? What are the roles of the EMB and other organisations (e.g. organisations on lower levels of government) at enforcing compliance with security-sensitive requirements?

The counting of the votes is done manually and is public, for the electoral law establishes so.

There are tasks that are carried out for the dissemination of the provisional results that are contracted and the successful bidder of such contract must comply with the requirements of the National Security Scheme.

- o. Are there any system-independent procedures defined to verify the correctness of critical data held and computations performed by the systems in question (e.g. digitalised votes, counting, tabulation, election results; voter register)?

The main tasks of the voting process are manual.

SWEDEN

QUESTIONNAIRE

When examining your replies, the Secretariat of the CDDG may need to contact you for further enquiries or clarifications. To that end, we would appreciate that you provide your contact details:

Author of the reply

- Country: **Sweden**
- Organisation: Ministry of Culture, Division for Media and Democracy
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Questions

1. In which stages of the electoral cycle are digital technologies used (see the attached paper by Ms Ardita Driza Maurer)? What kind of digital technologies are used? Does the use of digital technologies in the electoral cycle follow an overall digitisation strategy?

We use digital technologies in all stages of the electoral cycle. We use in-house developed IT support. In it, we produce election geography, electoral rolls, ballot papers, voting cards, documentation for printing houses and the presentation of election results. The actual voting is manual, as is the counting of votes.

2. How are the following issues addressed in regulations, guidelines, contracts or internal procedures of or applicable to the Election Management Body (EMB) or their partner organisations:

oo. Human rights-centred use of Information and Communication Technology (ICT) in the electoral field -

pp. Detailed requirements stemming from human rights are necessary to regulate the use of ICT in elections -

qq. Usability of ICT

Only in the internal procedures of the EMB.

rr. The interplay of data protection and requirements relating to the secrecy of the vote

Regulations, both GDPR and the election act

ss. Transparency

We have two countings of the votes, from two separate authorities. Both countings are accessible for the public, as is the voting in the polling stations. And on our website you can see every single vote counted per constituency.

tt. Cybersecurity issues, including risk strategies, protection measures, verification possibilities, and contingency planning

Laws and regulations on Cyber Security for Election Authorities in Sweden

There are no specific laws or regulations in Sweden for election security.

Instead, the Swedish Election Authority (as national election authority), as well as the Country Administrative Boards (as regional election authorities), adhere to the rules and regulations which govern Swedish state agencies. The 290 Swedish municipalities (as local election authorities) adhere to the rules and regulations which govern Swedish municipalities.

In the field of cybersecurity Swedish state agencies and municipalities are primarily governed by laws regulating national security issues and crisis management and preparedness issues. In addition there are the Swedish acts and ordinances implementing the NIS-directive in Sweden, as well as a laws which govern public access to information and secrecy.

Protection against terrorism, subversion and espionage

The Swedish law on protective security (Säkerhetsskyddslagen (2018:585)) replaced an older law in 2019. Protective security refers to protecting information and activities of importance to Sweden's security against espionage, sabotage, terrorist offences and specific other threats.

Protective security measures are regulated by the Protective Security Act and the Protective Security Ordinance. The new Protective Security Act, in force as of 1 April 2019, applies to national, regional and local election authorities in Sweden.

Protective security also includes the protection of information relating to security-sensitive activities and is therefore also covered by the provisions of the Public Access to Information and Secrecy Act, or would have been covered by these provisions had this Act been applicable.

Acts and regulations

The Protective Security Act (2018: 585)

The Protective Security Ordinance (2018: 658)

The Security Police's regulations on Protective Security (PMFS 2019:2)

General information security/cybersecurity regulation

Swedish state agencies and are also governed by the Act (2015:1052) and Ordinance (2015:1052) on crisis preparedness and preparedness for war. The Swedish Civil Contingencies Agency has issued several regulations based on the aforementioned legal framework, such as:

MSBFS 2020:6 - regulations on information security for government agencies;

MSBFS 2020:7 - regulations on security measures in information systems for state authorities;

MSBFS 2020:8 - regulations on reporting of IT incidents for government agencies.

These laws and regulations regulate Swedish national and regional election authorities (in their capacity as national government agencies).

Swedish local election authorities (municipalities) are governed by the act (2006:544) and ordinance (2006:637) on municipalities' and county councils' measures before and in the event of extraordinary events in peacetime and heightened preparedness.

The Act implementing the NIS Directive in Sweden is SFS 2018:1174, and the ordinance implementing the NIS Directive in Sweden is SFS 2018:1175.

Risk- and vulnerability assessments for government agencies are regulated by MSBFS 2016:7. For municipalities, the corresponding regulation is MSBFS 2015:5.

Secrecy and data protection

Public access to information and secrecy is described in the following publication:

<https://www.regeringen.se/informationmaterial/2009/09/public-access-to-information-and-secrecy-act/>.

uu. Control, enforcement and accountability requirements

Please see our answer regarding question 2.f.

vv. Issues related to resources and to co-operation with the private sector should be addressed.

Only in the internal procedures of the EMB

If so, provide details and comments (how are these issues regulated)?

- 3.** Are there any plans to extend the use of digital technologies and, if yes, in which stages of the electoral cycle? Can you specify what type of technology is envisaged? And are there any plans for reviewing the relevant regulations or introducing new ones?

Yes, we are planning to send the voting cards digitally next election and we are planning to make the electoral rolls digital, and be able to use them digitally in the polling stations in the future.

4. Have any significant difficulties arisen from the use of digital technologies in specific stages of the electoral cycle in the past? How were these difficulties resolved?

Yes, we had an DOS-attempt at our website in our general election 2018. Our website was down for six hours during the preliminary counting of the votes at election night. We have identified the reason and that we need more resources to work with IT-security to stand against the threats of today.

5. Has the COVID-19 pandemic had an impact in the field of elections? For instance, has it given rise to a public debate on the organisation of elections in general or as regards the introduction of new technologies in elections? Have changes in the electoral system been introduced to ensure the organization of elections during the pandemic? If yes, were these changes introduced considered effective?

No.

6. What are the regulations applying to procurement as regards the provision of digital technologies by private companies?

7. Are resources made available for the use of digital technologies adequate?

No, we need more resources to be able to introduce digital technologies for more purposes than today.

8. Would you find an added value in greater exchange of information/ guidance in this area, at international level?

Yes. We would like to have concrete exchange at an international level, about different tools. One example is how different countries work with incident reporting during elections.

9. Is there any additional information that you would like to provide, in relation to any stage of the electoral cycle?

10. Additional specific aspects on which delegations may want to provide information:

- p. Does the EMB hire and involve personnel with a background in computer-science, engineering or a related field at drafting regulations, guidelines, contracts and procedures? What is their mission?

No, but if and when we need that kind of competence, we have the Swedish Tax Agency as our host and support organisation, so we can use their competence in this area.

- q. How are the systems, the operational infrastructure as well as the operational and maintenance procedures scrutinized? Is public scrutiny supported for example by publishing the source code of custom software? What are the roles of the EMB and other organisations (e.g. organisations on lower levels of government) at enforcing compliance with security-sensitive requirements?

No, there are no public scrutiny of this kind, but we don't have e-voting or electronic tallying in Sweden.

- r. Are there any system-independent procedures defined to verify the correctness of critical data held and computations performed by the systems in question (e.g. digitalised votes, counting, tabulation, election results; voter register)?

We use three different methods for calculation of the election results.

SWITZERLAND

QUESTIONNAIRE

When examining your replies, the Secretariat of the CDDG may need to contact you for further enquiries or clarifications. To that end, we would appreciate that you provide your contact details:

Author of the reply

- Country: Switzerland
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Questions

- 1. In which stages of the electoral cycle are digital technologies used (see the attached paper by Ms Ardita Driza Maurer)? What kind of digital technologies are used? Does the use of digital technologies in the electoral cycle follow an overall digitisation strategy?**

Preliminary remarks

In Switzerland, most phases in the electoral cycle are under the responsibility of the cantons. They use digital technologies in most phases and to varying degrees. Digitisation in general and in political rights in particular is predominantly carried out in a bottom-up fashion, in which the cantons and municipalities determine the pace according to their needs. Thereby, successful cantonal projects may accelerate the development and bring other cantons to adapt their processes as well. The Federal Chancellery, as the national EMB, has the role of a coordinator and promotes exchange among the cantons. The present questionnaire has been answered in cooperation with some of the cantons.

Planning and preparation

For the planning and preparation of elections and popular votes, the competent authorities on the different federal levels use various digital technologies (e.g. business management software, etc.).

Training and education

Explanations of proposals submitted to a vote and voting instructions as well as additional information for voters are sent to the voters by postal mail and they are increasing efforts in making them available online too (e.g. for federal elections see <https://www.ch.ch/fr/elections2019/>). Furthermore, the Confederation and the cantons operate a joint mobile app that contains both voting information and voting results (www.bfs.admin.ch/bfs/fr/home/statistiques/politique/votations/voteinfo.html).

As federal popular votes are mainly operated by the cantons and municipalities, training of staff involved in the electoral process is also organized and provided on these levels. At this point, there is no overview of existing training measures.

Registration of voters and candidates

1. Usually the approximately 2200 communes maintain the electoral registers. They do not necessarily provide for the operational infrastructure. They use software or work with data-centers, which can be uniform or different within a canton. The electoral registers are derived from the population register and are standardised based on the Federal Act on the Harmonisation of Registers and corresponding technical regulations. In addition, there are various optional technical data standards in the area of political rights that are made available by the eCH standardisation association as to facilitate interoperability in a decentralized landscape with actors that enjoy a high degree of administrative independence. The standards are elaborated and maintained under participation of representatives from interested parties from administration and industry. They include voter-register data, voting and election data (voting circles, voting issues, candidates, results, individual votes).
2. In some cantons, candidate lists are submitted and processed electronically on one single platform. For example, in the canton of Argovia, the political parties register their lists and candidates for proportional representation elections (on national and cantonal level) electronically. A physical election proposal form with the original signatures is nevertheless requested for the definitive registration.

In Switzerland, identifying persons online can be a challenge. The situation might change due to the E-ID law, which will be subject to a popular vote in early 2021.

Voting operations

Voting

- Currently, online voting is not available in Switzerland. Nevertheless, on 18th December 2020 the Federal Council decided to redesign e-voting trial phase, which should permit the cantons to undertake limited trials with online voting using so-called fully verifiable systems. More precise security requirements, increased transparency, closer cooperation with independent experts and effective auditing on behalf of the Confederation should all contribute to ensuring the security of e-voting. There will be a public consultation procedure on amending the statutory bases in 2021.

Counting

- The cantons use procedures in which ballot papers are sorted by hand and afterwards counted mechanically or physically by means of counting machines (analogous to banknote counters) or precision scales.
- In some cantons, particularly in big municipalities, ballot scanners (e-counting) are used for counting the ballot papers in popular votes. The Federal Council has issued a circular that includes a requirement to challenge the result based on a statistically significant hand-counted sample of votes.
- In some cantons, in complex elections (in particular in proportional representation elections), ballots are counted using special software. To that end, the individual ballots are manually introduced into a system (no digital reading of ballots). The ballots are sometimes introduced twice, (by independent teams) and the results compared.

Transmission

- The transmission of results from counting offices to central authority is typically done electronically. There are differences between the cantons in terms of systems and processes and involved actors (i.e. different public and possibly private actors). In the canton of Bern, for example, the system prevents specific incorrect entries and alerts users to certain implausible result entries. The cantons transmit their consolidated results to the federal authorities via a secure data exchange platform provided by the Federal Statistical Office called *sedex*.

Elections results

- We do not have an overview of the different process definitions among the cantons. The software or service used for tabulation and establishing the result is provided or procured by the canton or municipality.
- The canton of Zurich explicitly stated that the minutes of the polling station drawn up by the transmission software are compared with the results entered into the system by the level office members.
- The election results are usually checked for plausibility, although the methods and systems used differ considerably (see also question 10). The distribution of mandates at the federal level is recalculated manually; i.e. software-independently.

2. How are the following issues addressed in regulations, guidelines, contracts or internal procedures of or applicable to the Election Management Body (EMB) or their partner organisations:

ww. Human rights-centred use of Information and Communication Technology (ICT) in the electoral field

The Swiss Federal Constitution guarantees comprehensive protection of political rights. Voters have a fundamental legal right to have these guarantees respected in regulations and the application of the law. Accordingly, the legal bases are oriented towards the realisation of the constitutional principles.

xx. Detailed requirements stemming from human rights are necessary to regulate the use of ICT in elections

See answer to question 2/a.

yy. Usability of ICT

Ensuring and improving the usability of ICT is an ongoing process, even in the absence of domain-specific regulation.

In accordance with article 29 of the UN convention on the Rights of Persons with Disabilities (CRPD) and domestic legislation voter information is presented in an accessible way (information videos in sign language, barrier-free PDF etc.).

zz. The interplay of data protection and requirements relating to the secrecy of the vote

The secrecy of the vote is a more specific protection principle, which protects a certain personal information (political will) from being known by third parties (with some limitations for voters with handicaps who are unable to vote autonomously). The protection of the secrecy of the ballot is protected by the constitution and by the federal political rights act and cantonal legislation.

Data protection legislation is also applicable in the area of elections and voting (keeping of registers, handling of personal data for voting material, etc.). In addition, regulations concerning information security are taking effect.

aaa. Transparency

In general, the legal framework and operational practices concerning the use of counting, tabulation and transmission software currently do not specifically emphasize transparency.

Most cantons have enacted public access laws, which guarantee access to official documents. Yet, as far as we know, software is hardly disclosed (copyrights, business secrets). Still, individual efforts to increase transparency may be observed. With regard to e-voting, the source code and documentation of the system must be made public under current federal law. In future, the systems will be open to ongoing public testing, primarily in a bug-bounty program and on the long run it is envisaged to publish future e-voting-systems and system components under an open-source license. But more transparency is also a topic beyond e-voting. The canton of St. Gallen, for example, intends to disclose the source code of its future voting operations system, which will be operational in 2022.

bbb. Cybersecurity issues, including risk strategies, protection measures, verification possibilities, and contingency planning

These domains are primarily in the responsibility of the cantons. Some cantons see a need to improve in the areas of risk-management and independent scrutiny. Given the large number of involved actors and given the technical nature of the domain (thus requiring interdisciplinary competencies beyond the political rights), defining and implementing appropriate measure is challenging. In particular with regard to issues in these domains, the Confederation is aiming at offering assistance to the cantons by increasingly playing its role as a coordinating body.

ccc. Control, enforcement and accountability requirements

See answer to 2f.

ddd. Issues related to resources and to co-operation with the private sector should be addressed.

The ways responsibilities are divided among public and possibly private or semi-private actors at maintaining and operating the technology vary among the cantons. We do not

have an overview. Procurement laws are applicable. They protect to a certain extent from unilateral dependencies and ensure competition among solution providers.

3. Are there any plans to extend the use of digital technologies and, if yes, in which stages of the electoral cycle? Can you specify what type of technology is envisaged? And are there any plans for reviewing the relevant regulations or introducing new ones?

The majority of cantons do not pursue a specific digitisation strategy in the area of political rights. New digital technologies are primarily envisaged where processes can be made more efficient. However, data security, data protection and data integrity have top priority at all times when it comes to elections.

A few cantons are planning pilot projects with e-collecting (electronic collection of signatures for initiatives and referenda) at the cantonal level (they offer online voting at the federal level). Therefore, the respective legislation has to be adapted and the technical means have to be developed (e.g. electronic identity to enable users to identify themselves correctly and securely on the internet, automatic verification of voting rights based on the electoral register). The Canton of Geneva is looking into an automation and digital tracing throughout the processing of postal votes (from the arrival of mail to the counting of votes) as well as for a broader application of e-counting (elections and popular votes)

In the near future, the current regulations will probably have to be reviewed and, if necessary, renewed or supplemented. In this process, the Confederation will increasingly assume a coordinating role.

4. Have any significant difficulties arisen from the use of digital technologies in specific stages of the electoral cycle in the past? How were these difficulties resolved?

The use of digital technologies, especially election software, implies the risk that the software will not function correctly, which may cause complications and doubts about the calculated results. To prevent such problems, cantonal authorities test the functionality of the software used in the run-up to the elections. Sometimes, a representative of the manufacturer of the voting software is on site on election day to provide support in case of emergency (e.g. in the canton Lucerne). Significant problems with the digital technologies in use have been observed relatively rarely. Nevertheless problems have occurred in the past in local elections, where the results could only be reported with strong delays due to an error in the procured software.

Over all, there are some doubts that all the systems are always maintained to the extent that appears necessary due to the importance of the elections and popular votes. Doubts find support in published articles^{12,13}, where observations in some cases imply negligence at the maintenance of voting-related infrastructure. In the public discourse questions have been raised concerning the current security standards and procedures. A more comprehensive risk assessment appears to be appropriate.

¹² [The Swiss Postal Voting Process and Its System and Security Analysis | SpringerLink](#)

¹³ [«Passwort: Wahlen» – der technische Hintergrund und das Glossar zur Recherche – Republik](#)

- 5. Has the COVID-19 pandemic had an impact in the field of elections? For instance, has it given rise to a public debate on the organisation of elections in general or as regards the introduction of new technologies in elections? Have changes in the electoral system been introduced to ensure the organization of elections during the pandemic? If yes, were these changes introduced considered effective?**

The pandemic has highlighted the importance of digitalisation in the field of political rights and has probably increased the acceptance of innovations. The question of whether new technologies could make the exercise of political rights more robust in times of crisis, is discussed on different levels.

- 6. What are the regulations applying to procurement as regards the provision of digital technologies by private companies?**

WTO Agreement on Government Procurement, Federal Law on Public Procurement and federal ordinance on Public Procurement (federal level) as well as the Intercantonal Agreement on Public Procurement and cantonal legislation (cantonal level).

- 7. Are resources made available for the use of digital technologies adequate?**

The situation in the cantons varies. In many cases, the resources of the cantonal EMB are limited. As a result, dependencies on external service providers can be observed. Intercantonal cooperation can mitigate these dependencies, but may not prevent them.

- 8. Would you find an added value in greater exchange of information/ guidance in this area, at international level?**

Yes. The aim should be that the administrations on all levels are able to assume their responsibilities to the full degree, i.e. without losing control due to dependency on third party actors. In particular, exchange and guidance that takes into account the decentralized environment with independent players from the public and the private sectors, would be welcome.

- 9. Is there any additional information that you would like to provide, in relation to any stage of the electoral cycle?**

- 10. Additional specific aspects on which delegations may want to provide information:**

- s. Does the EMB hire and involve personnel with a background in computer-science, engineering or a related field at drafting regulations, guidelines, contracts and procedures? What is their mission?**

The federal EMB has in-house experts with a background in computer-science specifically for the area of voting. In interdisciplinary collaboration with lawyers and social-scientists, they draft regulations, guidelines and contracts and support lower level EMB in these regards. Cantonal EMBs often do not have such in-house specialists mainly for resource reasons. Instead, they might get seek support from specialists from other administrative

units or external specialists. Nevertheless, some cantonal EMBs have staff with backgrounds in data science and IT as well.

- t. How are the systems, the operational infrastructure as well as the operational and maintenance procedures scrutinized? Is public scrutiny supported for example by publishing the source code of custom software? What are the roles of the EMB and other organisations (e.g. organisations on lower levels of government) at enforcing compliance with security-sensitive requirements?**

With regard to e-voting, the source code and documentation of the system must be made public under current federal law. In future, the e-voting-systems will be open to ongoing public scrutiny.

The legal framework and operational practices concerning the use of counting, tabulation and transmission software will probably have to be improved in near future based on transparency, scrutiny and risk management. Foundations serving reliable procedures are available and shall be considered: For example protocols for monitoring the functions of the systems used in some cantons, as well as plausibility checks of election results on election day and in the post-election phase.

Furthermore the canton St. Gallen intends to disclose the source code of its future voting operations system, which will be operational in 2022. The Canton of Geneva requires the disclosure of the source code for e-voting and aims to publish all source codes supporting political rights activities.

- u. Are there any system-independent procedures defined to verify the correctness of critical data held and computations performed by the systems in question (e.g. digitalised votes, counting, tabulation, election results; voter register)?**

In the canton of Zurich, for example, the Elections and Voting Service prepares projections of results for each polling station. These projections are based on previous results as well as on the first results of the ballot in question. Similarly, the service uses plausibility control software fed by previous results as well as results transmitted on polling day. These two statistical methods used can therefore be considered partially independent of the tabulation/transmission system/software.

For federal elections, the correct distribution of mandates is recalculated manually in a software-independent way.

UNITED KINGDOM

OPENING REMARKS FROM THE UK GOVERNMENT

The UK has worked tirelessly to build our democratic system and values, and this government takes the safeguarding and integrity of our democratic processes seriously. We are working to secure, protect and promote our democracy by strengthening relevant legislative frameworks, enhancing capabilities and engaging with domestic and international partners to share best practice. We continue to work with local authorities, the devolved administrations and the UK's independent elections regulator, the Electoral Commission, to ensure our systems are fit for purpose, both now and for the future.

It is essential that democratic events are delivered safely and securely, and that there is confidence in the outcome. The voting system used in the vast majority of polls in the UK is paper-based. This has the major benefit of ensuring our systems do not lend themselves easily to direct electronic manipulation, as voting and counting of ballots are highly manual processes conducted under the watchful eye of observers.

Technology will undoubtedly continue to play an important role in increasing the accessibility of elections for voters. The UK government agrees with the Council of Europe that new technologies can improve and facilitate several aspects of elections, though they also bring challenges and risks at the same time. Whilst the use of new technologies may increase efficiency and speed, they are also complex, subject to rapid change and may open the door to unpredictability and even attacks against the electoral process.

The UK government recognises the important role the Council of Europe plays in contributing to the conversations around how elections can be run safely and security in the modern age and welcomes the Council's ambition to create standards and principles for the use of technology in the electoral cycle. The UK government response sets out our current systems and processes for the use of digital technologies in the electoral cycle.

NOTE ON THIS RESPONSE: The UK does not have a single body that is responsible for the administration of elections. In England, Scotland and Wales, they are undertaken by statutorily independent officers (Returning Officers) based in local authorities. Northern Ireland has an independent Electoral Office led by the Chief Electoral Officer who oversees elections for Northern Ireland. These officers are provided with guidance, and their performance is monitored and reported on, by the UK's independent Electoral Commission. The Commission maintains registers of political parties and campaigners, provides guidance for candidates and campaigners, and enforces campaign finance rules. Responsibility for policy and legislation sits with the UK Government for UK parliamentary and Police and Crime Commissioner elections, UK-wide referendums and for local elections and referendums in England. The Scottish and Welsh governments have that responsibility for their respective parliaments and local elections. Furthermore, policy and legislation in relation to elections in Northern Ireland is the responsibility of the Secretary of State for Northern Ireland.

This response has been completed by the Cabinet Office which has policy and legislative responsibility for elections within the UK Government with input from colleagues in other governments in the UK.

RESPONSE TO QUESTIONNAIRE

1. In which stages of the electoral cycle are digital technologies used ([see the attached paper by Ms Ardita Driza Maurer](#))? What kind of digital technologies are used? Does the use of digital technologies in the electoral cycle follow an overall digitisation strategy?

OFFICIALS ANSWERING: Cabinet Office, UK Government

ANSWER

Registration of voters, political parties and election observers; nomination of parties and candidates. Registration and handling of issues/questions potentially leading to a referendum (popular vote).

Registration of voters

The UK recognises the importance of facilitating easy access to voter registration, and we have accessible systems in place to ensure the public can register quickly and securely. Almost all UK voters in all statutory elections can apply to register to vote online via a Register to Vote service and its underpinning Digital Service, developed and operated by the UK Government. Online registration has been available since June 2014 and operates alongside more traditional means to apply to register to vote (paper application forms, or telephone or in-person registration). It is for the elector to choose how they wish to apply to register to vote.

The accurate registration of voters is an integral part of the electoral process. The Register to Vote service acts as a conduit, passing the details of an application to the relevant Electoral Registration Officer (ERO), using the postcode to identify which is the relevant ERO for the area in which the applicant is resident (or was previously resident in the case of overseas electors and certain other special category electors). It is for the relevant ERO to make a determination in each case as to the eligibility of the applicant, and to add them to the electoral register, or seek further information directly from the applicant, or determine that the applicant is not eligible. Accordingly, the Register to Vote service passes on all complete complications to the ERO and does not itself filter any out.

The UK is committed to ensuring voter registration is secure and accurate. A core element of the Register to Vote and Digital Service is the verification of the identity of applicants. Applicants must supply their National Insurance Number (NINo) when applying, or a reason why they cannot supply it. This is then data matched, along with dates of birth and full name, against records held by the UK Government's Department for Work and Pensions (DWP). An exceptions process is in place for those who cannot provide a NINo, or whose NINo and other identifiers do not match against DWP records, whereby the relevant ERO will contact them directly to ask for additional information (such as documentary evidence).

The UK Government also provides an annual data match functionality to Electoral Registration Officers (EROs) in Great Britain to help them maintain the completeness and accuracy of their electoral registers. This functionality allows EROs to upload their full registers for a data matching process against name, date of birth and address against Government data, to ascertain which electors have likely moved address over the previous year, ahead of the statutory annual canvass or 'audit' of the electoral registers. The register in Northern Ireland is

not subject to an data match or annual canvass but maintained using a process of continuous data matching against local data sources including DWP, augmented by a full electoral canvass conducted at least every 10 years.

EROs use Electoral Management Systems (EMS) to manage their electoral registers. These database softwares are provided by third party suppliers. The systems allow EROs to maintain electoral registers, including specific functionality to enable the running of the annual canvass and manage electoral events. The suppliers of EMS also provide other digital functionality/products to EROs such as online canvassing platforms and poll worker training portals.

Registration of Political Parties, Third-party Campaigners and Candidates

PEF Online is the secure database maintained by the Electoral Commission where political parties can complete their registrations and maintain their details. The database can also be used by political parties to submit their statutory financial returns.

A political party that is not yet registered has to complete a form nominating an online administrator for PEF Online, which they can email, post or fax to the Electoral Commission. Once the administrator has a verified account, they can complete a form on PEF to register the political party, as long as all the relevant information can be provided. Where PEF Online cannot be used, political parties are also able to register with the Electoral Commission by post.

The Electoral Commission publishes the political party registers (for Great Britain and Northern Ireland) online, which provides the public with information about when the party registered and relevant party details such as the names of its officers, its main address and where it intends to field candidates.

Third-party campaigners (those groups which are individuals or organisations campaigning in the run-up to an election but who are not standing as political parties or candidates) can also use PEF Online to apply to become a registered third-party campaigner. This allows them to spend over a certain threshold during an election campaign, although still within a spending limit. Once accepted on to the register (unlike for political parties, there is only one UK-wide register), third-party campaigners remain registered for 15 months. They are able to use PEF online to renew their registration when necessary. Alternatively, third-party campaigners can submit specific forms to the Electoral Commission by email to register or renew their registration.

The Electoral Commission also publishes the register of third-party campaigners online for the public to view, providing details as to when the group registered, what type of entity it is (for example a registered company or an individual) and details of its registered address and responsible person.

The nomination of candidates does not require the use of digital technologies. To become nominated as a candidate at a UK Parliamentary general election in Great Britain, one needs to submit (by hand) a completed set of nomination papers to the place fixed by the (Acting) Returning Officer by 4pm on the 19th working day before the poll.

Registration of Election Observers

The Electoral Commission is responsible for authorising individuals and organisations to observe elections and referendums. The Electoral Commission maintains and publishes a register of accredited electoral observers online. An individual or organisation may apply to be an accredited observer through the Electoral Commission's website.

Referendums

The specific procedure and rules which govern national referendums are set out in the specific legislation that is produced for each referendum. Therefore the procedure and processes may differ between referendums, including the franchise and whether the referendum is under reserved UK Government competence or conducted by a Devolved Administration. The relevant legislation will also contain the referendum question on which the electors will vote. Under the Political Parties, Referendums and Elections Act 2000, the Electoral Commission is required to consider the wording of this referendum question and publish a statement as to the question's intelligibility. To inform their statement, the Electoral Commission carries out research with members of the public to ensure the question is easy to understand, some of which takes place online.

Digital technologies are also used for registering campaign spending. Anyone can spend up to £10,000 on campaigning during a referendum without needing to register. Campaigners who wish to spend more than £10,000 must register with the Electoral Commission. Registration can be done through the Electoral Commission's PEF online database. The Electoral Commission will also designate a lead campaign group for each side of the referendum question.

Planning and preparation for the implementation of electoral activities. This includes the recruitment and training of electoral staff as well as electoral planning.

Returning Officers use Electoral Management Software systems to support and manage preparation for the delivery of polls, these are generally electronic systems to make administration easier and gain the benefits of IT where they can improve efficiency over paper based administrative processes. These can include facilities to support the recruitment and training of electoral staff.

Electoral campaigning, including official information addressed to electors.

The role and importance of digital technologies in electoral campaigning has grown enormously over the last decade. Almost half of all political advertising budgets are now spent on digital activity, with political parties, third party campaigners and candidates making extensive use of online political campaigning to distribute paid and unpaid material to electors.

The rules that apply to digital materials for reserved polls are different to that of printed political materials (such as election leaflets posted through the letterbox to electors). Printed material requires an 'imprint' explicitly showing who is promoting the material and on whose behalf. These transparency rules do not currently apply to online digital material, such as social media posts or paid political advertisements.

The UK Government is committed to introducing a digital imprints regime so that voters viewing online digital material benefit from the same transparency as those reading printed material. To this end, the UK government launched a technical consultation on our proposed

regime in August 2020 which closed in November. Further details for implementation will be set out in due course.

The proposals call for digital imprints to apply to all types of campaign content, regardless of the digital platform on which this content is shared or the country from which the content is being promoted. Voters value transparency and these new digital imprints will inform voters about the source of online campaign material. These proposals represent a significant step forward and will make UK politics even more transparent.

Voting operations, including polling, counting and tabulating results.

There is no electronic or online voting at statutory polls where policy and legislative responsibility sits with the UK Government.

Electronic counting is provided as an option for Greater London Authority elections, and any decision to use this capability sits with the Greater London Authority, which has chosen to use it in the Mayor of London and London Assembly polls since 2000 in order to get results declared ahead of a deadline set for the Assembly to meet. For these polls, electors vote in the usual way. Ballot papers are then taken to three 'count centres' where they are scanned, with results collated and calculated electronically.

Electronic counting is also used in Scotland for local government elections, which use the Single Transferable Vote (STV) system, and for which the Scottish Government has the policy and legislative responsibility.

Election results announcement, including transmission and publication of results, the resolution of electoral disputes, reporting, auditing.

Returning Officers publish election results in a variety of ways including on relevant local authority websites and via social media. Broadcast media, online news sources and social media sources play a role in disseminating the results of elections and referendums.

The outcome of an election may be challenged by lodging a petition with the election court and the ability to challenge or question the result of a referendum is set out in the specific legislation for the poll - for the referendum in June 2016, this was by way of judicial review. There is no particular ICT element for these processes which follow normal court processes.

Post-election duties including the destruction and/or archiving of materials.

The Government seeks to ensure integrity at all stages throughout the electoral cycle. We work closely with partners across the electoral community to ensure that democratic events are delivered safely and securely. The processing of personal data is conducted in line with UK data protection law.

2. How are the following issues addressed in regulations, guidelines, contracts or internal procedures of or applicable to the Election Management Body (EMB) or their partner organisations:

- a. Human rights-centred use of Information and Communication Technology (ICT) in the electoral field**
- b. Detailed requirements stemming from human rights are necessary to regulate the use of ICT in elections**
- c. Usability of ICT**
- d. The interplay of data protection and requirements relating to the secrecy of the vote**
- e. Transparency**
- f. Cybersecurity issues, including risk strategies, protection measures, verification possibilities, and contingency planning**
- g. Control, enforcement and accountability requirements**
- h. Issues related to resources and to co-operation with the private sector should be addressed.**

If so, provide details and comments (how are these issues regulated)?

OFFICIALS ANSWERING: Cabinet Office, UK Government

ANSWER

It should again be noted that the UK does not have a central body for running elections.

The UK government takes seriously the importance of ensuring that the use of electoral technologies support core democratic principles of privacy, equality, and transparency. The use of technologies, data, and wider electoral processes are subject to a variety of stringent requirements. These include:

Usability and Accessibility: The Register to Vote Service fully meets all relevant success criteria up to and including level AAA of the [Web Content Accessibility Guidelines \(WCAG\)](#) version 2.1. The colour contrast of certain buttons and text within the service currently comply with level AA of WCAG 2.1 as per guidance issued in the GOV.UK Service Design System. Full details can be found on the [service accessibility statement](#). Cabinet Office conducts regular usability testing and an annual accessibility audit on the service to ensure the website fully meets the needs of users.

Data handling and data protection: the [Register to Vote Privacy Notice](#) sets out the data gathered at the point of an application to register to vote, its recipients, retention, and other information as required by UK data protection law. Once application data is passed to EROs, they then become the data controllers and it is deleted from the Register to Vote system.

UK GDPR and data protection: EROs and ROs have a statutory duty to process certain personal data to maintain the electoral register and for the purpose of administering an election. As such, they are subject to the requirements of the UK GDPR as 'data controllers'. Under UK

GDPR each local authority appoints a 'data protection officer'. In accordance with UK GDPR, appropriate technical and organisational measures are in place to ensure a level of security, appropriate to the risk.

The interplay of data protection and requirements relating to the secrecy of the vote: Besides data protection rules, there are strict legal requirements in relation to the secrecy of the vote in UK law and those administering elections follow the legislation and processes in place to ensure that secrecy is maintained. There are sanctions and penalties in place for breaching the secrecy of the vote.

Cyber/information security: Cabinet Office works with security advisors and with the National Cyber Security Center to ensure the security and resilience of the Register to Vote service and put enhanced support in place in advance of an electoral event. The National Technical Authorities work closely with delivery partners to ensure the safe and secure delivery of electoral events.

Transparency: The Electoral Commission (EC) publishes the political party registers (for Great Britain and Northern Ireland) online, which provides the public with information about when the party registered and relevant party details such as the names of its officers, its main address and where it intends to field candidates. The EC also publishes a range of information on spending: further details can be found on its [website](#).

Cooperation with the private sector: the Government works closely with partners to protect the mechanics and processes that are associated with delivering elections/referendums from cyber, physical and personnel threats. Security guidance and support is offered by the National Technical Authorities - the Centre for Protection of National Infrastructure (CPNI) and the National Cyber Security Centre (NCSC).

3. Are there any plans to extend the use of digital technologies and, if yes, in which stages of the electoral cycle? Can you specify what type of technology is envisaged? And are there any plans for reviewing the relevant regulations or introducing new ones?

OFFICIALS ANSWERING: Cabinet Office, UK Government

ANSWER

The voting system used in the vast majority of polls in the UK is paper-based, meaning voters make their decision at the ballot box with a paper ballot paper, whether that be in person themselves or via proxy, or via a postal vote. This has the major benefit of ensuring our systems

do not lend themselves easily to direct electronic manipulation, as voting and counting of ballots are highly manual processes conducted under the watchful eye of observers.

Digital Imprints

More broadly, as set out above, the UK Government takes seriously the importance of ensuring existing technologies are properly regulated. That is why we are committed to introducing a digital imprints regime so that voters viewing online digital material benefit from the same transparency as those reading printed material. Voters value transparency, and these new digital imprints will inform voters about the source of online campaign material. These proposals for digital imprints are intended to better regulate existing digital technologies in the electoral cycle. Whilst the UK government will continue to review and address the benefits and risks of new digital technologies, we remain committed to a paper-based voting system.

Remote electronic Voting

The UK government believes that remote electronic voting could open up new security risks. As outlined in the *2016 Electronic Balloting Review: The Report of the Independent Review of Electronic Balloting for Industrial Action*, presented to the UK Government Department of Business, Energy and Industrial Strategy, the security risks associated with remote e-voting, if introduced, would be significant. Whilst this report focused on smaller industrial ballots (rather than general and local elections), its lessons remain pertinent as industrial ballots in public-facing sectors still need to satisfy constituents that the result is fair, representative and trusted. Key issues that were raised include cyber security and appropriate auditing.

Accessibility

The UK Government undertakes ongoing work to consider how the accessibility of elections can be improved for people with disabilities. In 2017, the UK Government launched a call for evidence on improving the access to elections for people with disabilities and in 2018 published a response, which included a series of recommendations. As part of this work, there is ongoing consideration as to how digital technologies could improve the electoral experience for disabled people. The UK Government works with the Electoral Commission and the learning disability charity, Mencap, to provide easy read guides for the registration and voting process, available online, ahead of each set of major polls. Ahead of the 2019 UK Parliamentary General Election, the UK Government encouraged local Returning Officers to allow blind and partially sighted voters to use their own assistive equipment, such as mobile phones with specially designed apps for reading documents, or video magnifiers to help them cast their vote. The UK Government is also currently working with the Royal National Institute of Blind People to consider how candidate details might be made available in audio formats to blind and partially sighted voters in polling stations.

4. Have any significant difficulties arisen from the use of digital technologies in specific stages of the electoral cycle in the past? How were these difficulties resolved?

OFFICIALS ANSWERING: Cabinet Office, UK Government

ANSWER

The UK government agrees that technologies improve and facilitate several aspects of elections, but also bring challenges and risks with them. A key aspect of the electoral cycle is registration.

Demand for electoral registration services generally rises close to an electoral event. With the implementation of a digital application service, this also meant that electors are able to apply right up to the registration deadline. This creates significant pressure both on the digital infrastructure and on those administering elections, including Returning Officers (ROs) for elections and the Cabinet Office for referendums. For the 2019 election registration deadline, over 600,000 applications were made through the Register to Vote digital service in one day. This compares to a usual application level of 10,000-40,000 daily (depending on the time of year). As a result, the UK Government is undertaking work to establish how the pressure on electoral administrators could potentially be reduced in the run up to a major electoral event.

In 2016, a significant spike in demand for the Register to Vote service caused a system outage on the day of the registration deadline. In response to this, the UK Government has invested significantly in the resilience and scalability of the system infrastructure. This has culminated in migration to a scalable public cloud infrastructure in 2020.

5. Has the COVID-19 pandemic had an impact in the field of elections? For instance, has it given rise to a public debate on the organisation of elections in general or as regards the introduction of new technologies in elections? Have changes in the electoral system been introduced to ensure the organization of elections during the pandemic? If yes, were these changes introduced considered effective?

OFFICIALS ANSWERING: Cabinet Office, UK Government.

ANSWER

The UK government postponed scheduled elections from May 2020 and any unscheduled polls (e.g. local council by-elections and local planning referendums) and the Scottish and Welsh governments also postponed local by-elections due to the COVID-19 pandemic.

The UK government continues to work closely with the electoral community and public health bodies to resolve challenges and ensure everyone will be able to cast their vote safely and securely and in a way of their choosing - whether in-person, by proxy or by post. This includes supporting Returning Officers to ensure polling stations are safe and covid-secure places to vote.

6. What are the regulations applying to procurement as regards the provision of digital technologies by private companies?

OFFICIALS ANSWERING: Cabinet Office, UK Government

ANSWER

The UK government agrees that public-private cooperation is an important aspect of the use of new technologies in elections. UK voting mechanisms do not lend themselves to direct electronic manipulation as voting and counting of ballots are highly manual processes.

Where Returning Officers and others responsible for conducting polls utilise processes such as electronic counting provided by commercial suppliers (and in the limited types of poll where the law allows this), it is for them to ensure they have effective testing and procurement processes in place to ensure that systems are secure and reliable.

Regarding the provision of technologies by private companies, the UK government works closely with partners to protect the mechanics and processes that are associated with delivering elections from cyber, physical and personnel threats. Support and guidance is issued by the National Technical Authorities - the Centre for Protection of National Infrastructure (CPNI) and the National Cyber Security Centre (NCSC).

7. Are resources made available for the use of digital technologies adequate?

OFFICIALS ANSWERING: Cabinet Office, UK Government

ANSWER

As discussed in answer to question 6, appropriate support and guidance for the protection of digital systems is issued by the National Technical Authorities - the Centre for Protection of National Infrastructure (CPNI) and the National Cyber Security Centre (NCSC).

8. Would you find an added value in greater exchange of information/ guidance in this area, at international level?

OFFICIALS ANSWERING: Cabinet Office, UK Government

ANSWER

The UK government would welcome greater international engagement and information sharing around the use and management of risks around digital technologies in the electoral cycle.

9. Is there any additional information that you would like to provide, in relation to any stage of the electoral cycle?

OFFICIALS ANSWERING: Cabinet Office, UK Government

ANSWER

Paper Based voting

To reiterate the points above, the voting system used in many polls in the UK are overwhelmingly paper based. This has the benefit of ensuring our systems do not lend themselves easily to direct electronic manipulation.

Online Intimidation of Elected Officials

The UK government is committed to tackling abuse of elected officials, campaigners and candidates. Those in public life in the UK often experience regular and sustained abuse online. The UK government understands that this abuse leaves a lasting impact on victims, and we are clear that this abuse can corrode our democratic values and dissuades people from entering public life. Intimidation in public life can stop talented people, particularly women and those from minority backgrounds, from standing for public office. We recognise that several UK MPs have cited abuse as a reason for standing down.

The UK government is clear that it is essential electors can make their choice at the ballot box based on an informed discussion focused on policy and principle, rather than on abuse. A significant portion of this abuse and intimidation is received online. Such intimidation is unacceptable - it goes beyond free speech and corrodes the democratic values of the UK.

Therefore, the UK Government has committed to legislating for an additional electoral sanction against intimidation, both online and offline. Under this additional electoral sanction, someone convicted of intimidating a candidate, prospective candidate, campaigner or elected representative will receive a fine or prison sentence in addition to a ban from standing for elective office for five years.

The additional electoral sanction will protect candidates, campaigners, prospective candidates and elected representatives from intimidation, both online and offline; deter individuals from carrying out acts of intimidation; and signal that intimidatory behaviour is a serious matter which must not be allowed to damage UK democracy.

10A. Additional specific aspects on which delegations may want to provide information:

- a. Does the EMB hire and involve personnel with a background in computer-science, engineering or a related field at drafting regulations, guidelines, contracts and procedures? What is their mission?**

OFFICIALS ANSWERING: Cabinet Office

ANSWER

The UK does not have a single body that is responsible for the conduct of elections. In England, Scotland and Wales, they are undertaken by statutorily independent officers (Returning Officers) based in local authorities. Northern Ireland has an independent Electoral Office led by the Chief Electoral Officer who oversees elections for Northern Ireland. These officers are provided with guidance and their performance is monitored and reported on by the UK's independent Electoral Commission. The Commission is also responsible for regulating political parties and candidates.

Responsibility for policy and legislation sits with the UK Government for UK parliamentary, Police and Crime Commissioner, UK-wide referendums and for local elections and referendums in England. The Scottish and Welsh governments have that responsibility for their respective parliaments and local elections.

The Electoral Commission, the UK's independent body that regulates party and election finance and sets standards for how elections should be run, has published guidance for EROs and on using contractors and suppliers, and data sharing agreements with external organisations.

In relation to Cabinet Office contracts, all contracts for the operations of the Register to Vote service are procured through the UK Government's Digital procurement/contract frameworks: Digital Outcomes and Specialists framework and the G-Cloud framework. All applicable contracts are scrutinised by the service information assurance/cyber security advisor and the Service Product Lead.

In relation to the provision of cyber security, the National Cyber Security Centre provides appropriate guidance to local authorities to support technical and cyber security matters.

<p>10B. Additional specific aspects on which delegations may want to provide information:</p> <p>b. How are the systems, the operational infrastructure as well as the operational and maintenance procedures scrutinized? Is public scrutiny supported for example by publishing the source code of custom software? What are the roles of the EMB and other organisations (e.g. organisations on lower levels of government) at enforcing compliance with security-sensitive requirements?</p>
<p>OFFICIALS ANSWERING: Cabinet Office, UK Government</p>
<p>ANSWER</p> <p>It is important to ensure the operations and procedures are properly scrutinised with appropriate levels of transparency, whilst recognising the need to retain security around sensitive issues. Parliaments (UK and devolved) can, and do, scrutinise electoral policy and proposals for legislation.</p> <p>Register to Vote: At present there are not open source code repositories for the Register to Vote service. Front end components are built from shared GOV.UK Service Design system components, which are available through open source. The source code of the Register to Vote back-end systems are classified to maintain system security. The security of the system is scrutinised via third party penetration testing.</p> <p>Regarding wider scrutiny, the independent Electoral Commission publishes a report on elections. Its report on the UK Parliamentary Election 2019 can be found here. This provides independent scrutiny of the election delivery, campaigning, challenges and recommendations for the future.</p>

<p>10c. Additional specific aspects on which delegations may want to provide information:</p> <p>c. Are there any system-independent procedures defined to verify the correctness of critical data held and computations performed by the systems in question (e.g. digitalised votes, counting, tabulation, election results; voter register)?</p>
<p>OFFICIALS ANSWERING: Cabinet Office, UK Government</p>
<p>ANSWER</p> <p>Responses to this question have been provided throughout the previous answers.</p>

APPENDIX

QUESTIONNAIRE

When examining your replies, the Secretariat of the CDDG may need to contact you for further enquiries or clarifications. To that end, we would appreciate that you provide your contact details:

Author of the reply

- Country:
- Organisation / Election Management Body (EMB):
- Name:
- Position / Function:
- E-mail:
- Phone number:

Questions

1. In which stages of the electoral cycle are digital technologies used (see the attached paper by Ms Ardita Driza Maurer)? What kind of digital technologies are used? Does the use of digital technologies in the electoral cycle follow an overall digitisation strategy?
2. How are the following issues addressed in regulations, guidelines, contracts or internal procedures of or applicable to the Election Management Body (EMB) or their partner organisations:
 - eee. Human rights-centred use of Information and Communication Technology (ICT) in the electoral field
 - fff. Detailed requirements stemming from human rights are necessary to regulate the use of ICT in elections
 - ggg. Usability of ICT
 - hhh. The interplay of data protection and requirements relating to the secrecy of the vote
 - iii. Transparency
 - jjj. Cybersecurity issues, including risk strategies, protection measures, verification possibilities, and contingency planning
 - kkk. Control, enforcement and accountability requirements
 - lll. Issues related to resources and to co-operation with the private sector should be addressed.

If so, provide details and comments (how are these issues regulated)?
3. Are there any plans to extend the use of digital technologies and, if yes, in which stages of the electoral cycle? Can you specify what type of technology is envisaged? And are there any plans for reviewing the relevant regulations or introducing new ones?

4. Have any significant difficulties arisen from the use of digital technologies in specific stages of the electoral cycle in the past? How were these difficulties resolved?
5. Has the COVID-19 pandemic had an impact in the field of elections? For instance, has it given rise to a public debate on the organisation of elections in general or as regards the introduction of new technologies in elections? Have changes in the electoral system been introduced to ensure the organization of elections during the pandemic? If yes, were these changes introduced considered effective?
6. What are the regulations applying to procurement as regards the provision of digital technologies by private companies?
7. Are resources made available for the use of digital technologies adequate?
8. Would you find an added value in greater exchange of information/ guidance in this area, at international level?
9. Is there any additional information that you would like to provide, in relation to any stage of the electoral cycle?
10. Additional specific aspects on which delegations may want to provide information:
 - v. Does the EMB hire and involve personnel with a background in computer-science, engineering or a related field at drafting regulations, guidelines, contracts and procedures? What is their mission?
 - w. How are the systems, the operational infrastructure as well as the operational and maintenance procedures scrutinized? Is public scrutiny supported for example by publishing the source code of custom software? What are the roles of the EMB and other organisations (e.g. organisations on lower levels of government) at enforcing compliance with security-sensitive requirements?
 - x. Are there any system-independent procedures defined to verify the correctness of critical data held and computations performed by the systems in question (e.g. digitalised votes, counting, tabulation, election results; voter register)?