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EUROPEAN COMMITTEE ON DEMOCRACY AND GOVERNANCE (CDDG)

TAKING STOCK OF IMPLEMENTATION OF RECOMMENDATION CM/REC(2017)5 ON STANDARDS FOR E- VOTING AND THE GUIDELINES ON NEW TECHNOLOGIES AND THE DIFFERENT STAGES OF THE ELECTORAL PROCESS

- Main takeaways of the conference on E-voting and Use of ICT in Elections: "Taking stock and moving forward" (Strasbourg, 16 June 2023)
- Overview of replies to the questionnaire on new technologies and the different stages of the electoral process

Action required

The CDDG is invited to examine the results of the conference and the overview and, in the light of the discussions on this item, to suggest possible appropriate follow-up.

Memorandum
prepared by the
Directorate General of Democracy and Human Dignity
Democratic Governance Division

Introduction

The CDDG has been tasked by its terms of reference for the period 2022-2025 (task 8) to carry out a *Consultation to take stock of implementation of Recommendation CM/Rec(2017)5 on standards for e-voting and the Guidelines on new technologies and the different stages of the electoral process, involving the Venice Commission and Election Management Bodies in addition to holding review meetings on the implementation of the said recommendation at least every two years following its adoption*.

In preparation for such a review, the Secretariat was instructed to send out a questionnaire to member States on the use of e-voting and possible experience with and implementation of Recommendation CM/Rec(2017)5 as well as the Committee of Ministers' CM(2022)10 Guidelines on the use of ICT in electoral processes in Council of Europe member States to obtain a better understanding of member States' positions and the issues involved.

The questionnaire was circulated to the member States through the Venice Commission on 3 April 2023. In response to the questionnaire, 31 member States have provided information (situation as on 15 September 2023, after the prolongation of the deadline).

The first results of the questionnaire served as a basis for the conference held in Strasbourg, on 16 June: E-voting and Use of ICT in Elections: "Taking stock and moving forward", which was organised by the Division of Democratic Governance and the Division on Elections and Participatory Democracy.

Part I of this document contains the main takeaways of the conference.

Part II provides a picture of the current use of E-voting and ICT technologies in electoral processes of member States based on a horizontal overview of the responses received, which were compiled in an addendum (updated version of the horizontal overview presented at the conference in June).

I. Main takeaways of the conference on E-voting and the use of ICT in elections "taking stock and moving forward" (Strasbourg, 16 June 2023)

- Digital transformation is impacting all aspects of life, including elections. While some Council of Europe member States are adopting or updating legislation on e-voting, and a few member States even use e-voting, most are not considering e-voting solutions due to concerns about public trust, security, electoral integrity, cyber threats, costs, and lack of political consensus, as well as concerns over voter pressure, vote-buying, and manipulation.

- At the same time, member States are increasingly digitalising different aspects of the electoral process, such as voter and candidate registration, online submission of campaign expenses reports and complaints, political party registration, online training for election administration, application and accreditation of national and international observers, e-identification of voters, and e-counting. Many Election Management Bodies (EMBs) are also using their websites to publish regulations, decisions, instructions, political parties' financial reports and other documents. Some even live broadcast their sessions.

- There is a rising concern over an increased risk of cyber-attacks, foreign interference and manipulation particularly in national elections where the stakes are likely to be the highest. As the mere allegation of interference in elections might in itself undermine trust in democratic processes and its outcomes, states seem to be reluctant to consider or introduce internet voting solutions, especially as it is extremely difficult to ensure full security of online systems.

- To protect electoral integrity, trust in the process and its outcomes are vital. Trust and trustworthiness are different concepts. Trust relates to voters' perception of proper election management, while trustworthiness focuses on the adequacy and adherence to technological standards. Technology alone cannot guarantee trust, and trust is a precondition to the introduction of e-voting.

- In addition, EMBs, as the entities guaranteeing the integrity of the electoral process, should own and understand the technologies used, rather than relying on private companies.

- Personal data protection regulations may conflict with electoral principles, necessitating guidance on incorporating data protection provisions in elections. In addition, there is a difference between privacy and secret suffrage. While data protection aims to ensure privacy, the secrecy of the ballot is a separate matter.

- Guaranteeing the secrecy and freedom of the vote – two of the key principles of democratic elections – presents challenges in remote voting, such as postal voting or internet voting, particularly for vulnerable groups who may be at risk to face pressure. At the same time, remote voting can be beneficial for certain groups like expatriates and students, making it essential to offer various voting channels to increase or stabilize turnout.

- Citizens' limited knowledge of electronic public services and lack of trust in public institutions highlight the need for societal discussions on the use of Information Communication Technologies (ICT) in elections and on e-voting. Gradual introduction of ICT, with pre-election testing under realistic conditions and with relevant stakeholders, coupled with awareness-raising and voter education, can help in building trust and pave the way for a meaningful evaluation of the process. This is an ongoing task.

- ICT solutions in the electoral process promise transparency, efficiency and accuracy, but may also pose dangers, such as the potential for pre-poll disinformation and manipulation through powerful AI and cyber tools. The introduction of ICT in elections is thus context dependent, with no one-size-fits-all solution.

- International observers should receive proper capacity building and access to effectively observe the use of e-voting and ICT in elections. ODIHR is currently revising its handbook in this field which should be published at the end of 2023.

- Regular review meetings of the implementation of the current Recommendation CM/Rec(2017)5 on standards for e-voting along with the accompanying Guidelines as well as the CM guidelines for the use of ICT in electoral processes are necessary to adapt standards to evolving technologies. This is a continuous effort. Participants also agreed that such exchanges were important and inspirational, as countries needed to learn from each other and to replicate good practice.

- Furthermore, there is a need for more research and studies with regard the use of ICT in electoral process as well as e-voting, including to the growing phenomenon of use of artificial intelligence in election campaigning.

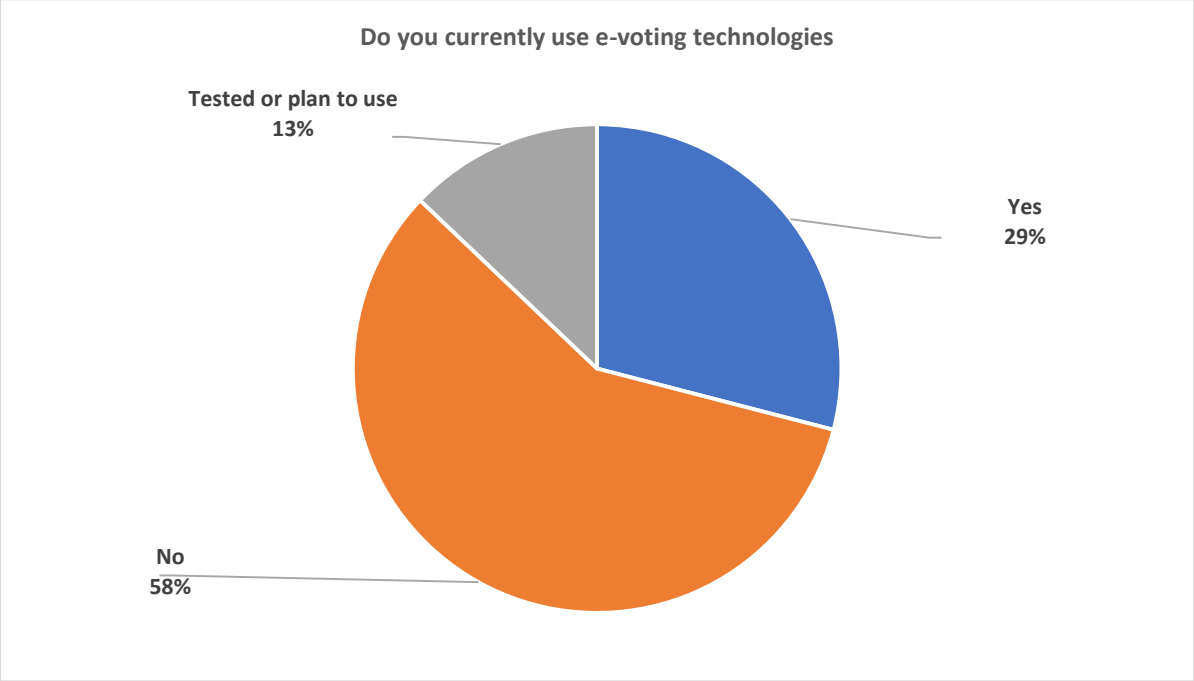
II. Overview of the replies

31 member States responded, namely: Albania, Armenia, Austria, Azerbaijan, Belgium, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Georgia, Germany, Greece, Hungary, Iceland, Lithuania, Luxembourg, Malta, Republic of Moldova, Netherlands, Norway, Poland, Portugal, San Marino, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Ukraine, and United Kingdom.

Question 1

Does your country currently, or is it planning to, use e-voting (such as the use of electronic voting machines, computers connected via the internet, or electronic means that aid in the casting of votes and counting) in:

Elections and/or referenda? If yes, at which level (local, regional, national, abroad, etc.)?



18 member States replied that e-voting was not currently used (in 2021, it was 26 of them), while nine member States (Albania, Armenia, Belgium, Bulgaria, Estonia, Georgia, Norway, Switzerland, and Ukraine) indicated that they have been using them in some form. Austria, Lithuania, Malta, and the Republic of Moldova indicated that electronic voting had been tested at the national, regional, or local level.

Georgia indicated that the 2024 parliamentary elections would mostly be conducted by using election voting technologies, with as many as 90 % of voters casting their votes using electronic devices (Georgia tested the system during the 2023 by-elections in 10 municipalities, with 91% of voters using the new electronic voting machines).

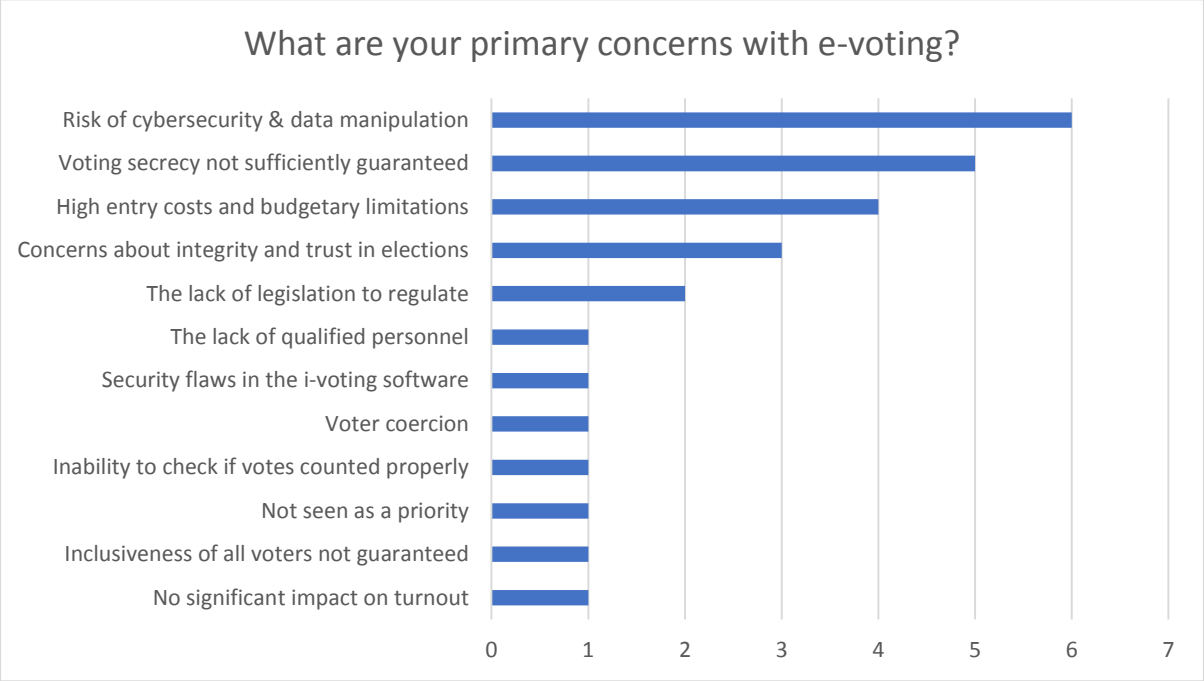
Estonia indicated that electronic means were used in national and local elections and were centrally managed. Armenia reported that electronic voting has been implemented nationally during parliamentary elections and for specific eligible groups (voters abroad). Bulgaria indicated that new amendments to the election code (that passed in December 2022) allow voters to vote by a paper or machine voting ballot.

Norway reported that electronic voting has been used in some local non-binding advisory referendums in municipalities and counties but without any assistance from the national electoral management body. In 2023, an electronic voting system will be developed that can be used for local non-binding advisory referendums.

Switzerland organised binding trials for internet voting on national, cantonal, and communal levels. Some part of the electorate of 3 out of 26 cantons was offered internet voting as a complementary option for casting their vote at the popular vote of 18 June 2023. If successful, it will also be used for the 2023 parliamentary elections. The same three cantons aim to offer internet voting in subsequent years. A fourth canton has also expressed interest in offering online voting starting in 2024.

Regarding those member States that have been testing electronic voting and conducting their first pilot projects, Albania tested it during the 2021 parliamentary elections and 2022 mayoral by-elections in two municipalities, using electronic voting and counting machines. The Republic of Moldova considers using internet voting for referenda and all types of elections. Belgium will use an electronic voting system in Flanders (which accounts for about 60% of the population), Brussels, and the German-speaking region during the 2024 elections. Iceland passed new legislation providing electronic electoral registers in all elections and referendums. Lithuania launched a tender for a feasibility study on internet voting on May 12, 2023, while San Marino has been evaluating the possibility of using electronic voting for internal electoral procedures. Malta has been using electronic counting of votes for all types of elections and is looking into the possibility of using it also in future for possible referenda.

If e-voting and e-counting are not used or have been discontinued in your country, please share the reasons why.



Issues related to cybersecurity (Czech Republic, Denmark, Germany, Poland, Slovak Republic, and Slovenia), as well as the inability to guarantee voting secrecy (Czech Republic, Denmark, Netherlands, Poland, and Slovak Republic), were mentioned most often as reasons why member States are not using e-voting or e-counting. Four countries (Czech Republic, Luxemburg, Sweden, and the United Kingdom) mentioned the high costs connected with the use of these technologies.

Hungary indicated that it did not consider the introduction of e-voting and e-counting as a priority. Slovenia stated that the electoral legislation did not provide for internet voting and that, it is also a question of confidence and trust, which is directly connected to technical issues and cybersecurity, and that citizens must be assured that no error will occur.

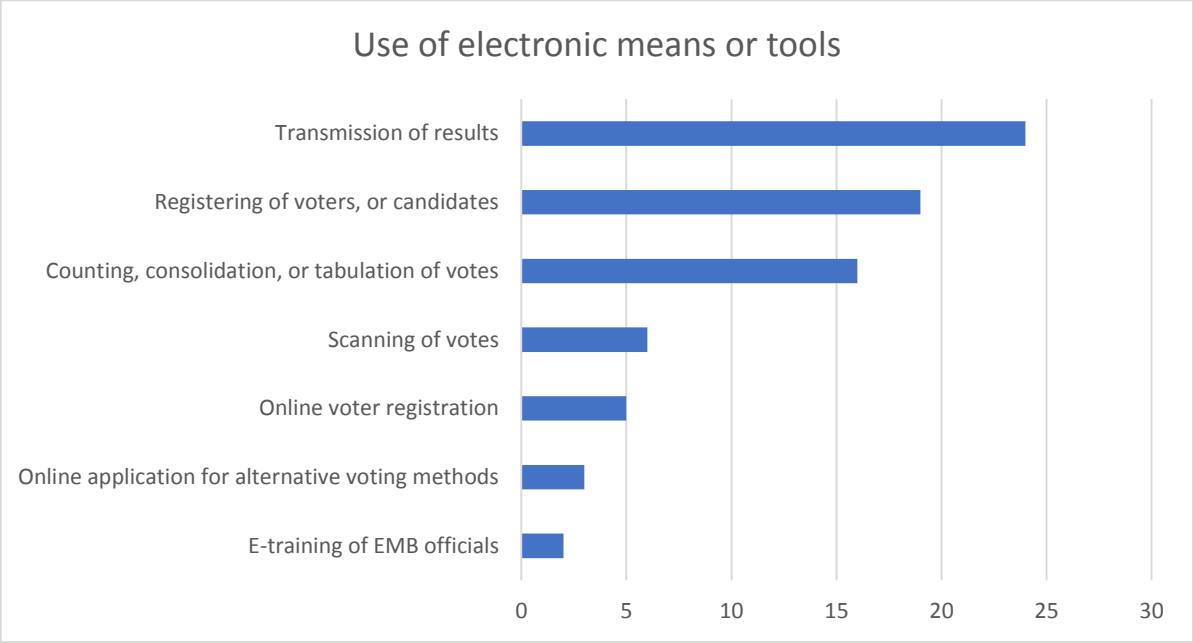
Norway did set up a commission that has considered e-voting for all stages of elections in a report from 2020. While the commission concluded that it was important to gain more knowledge about electronic voting to be able to make good assessments of the opportunities and risks associated with electronic voting, it also found that the security of electronic voting over the internet was still too problematic to introduce such a way of voting in Norway at present.

Sweden has tested scanners that both counted and identified each ballot some 12-15 years ago; it was concluded that while the results were good enough, the machines were too expensive and very labour-intensive. Switzerland had a system in 2019 whereby the cantons could choose between two systems for offering online voting (the system of Swiss Post and the system of the canton of Geneva). After that, the country discontinued internet voting for four years due to security flaws in the software of the Swiss Post as well as delays in the project planning and unforeseen additional costs in the case of the Geneva system. In the meantime, the authorities restructured the trial framework in collaboration with the cantons.

The United Kingdom encouraged local authorities in England (in the period 2000-2007) to undertake "electoral modernisation" pilot schemes to test new voting methods at local government elections. These included a range of e-voting solutions, including remote internet voting, but also telephone voting, and the provision of "vote anywhere" electronic polling stations. The electoral commission evaluated the pilot schemes, concluding that while the schemes facilitated voting (although they did not significantly impact turnout), risks involved in the implementation and security were significant and unacceptable. There were also concerns about the reliability and cost of e-voting. There have been no e-voting trials in the United Kingdom since 2007, and it has not been pursued as a policy option by the country's government.

Question 2

Does your country use electronic means or tools in relation to any other election-related procedures, such as the recording of votes, scanning of votes, consolidation/tabulation, or transmission of voting results? If so, please provide additional detail on ICT usage in the electoral process?



Member States indicated that electronic means or tools were used in a range of areas related to electoral procedures, such as:

- **transmission of results** (Armenia, Austria, Belgium, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Georgia, Germany, Greece, Lithuania, Malta, Norway, Republic of Moldova, Portugal, Spain, Slovak Republic, Slovenia, Sweden, Switzerland, Portugal, Iceland, and Luxemburg)
- **registering of voters or candidates** (Albania, Azerbaijan, Croatia, Denmark, Estonia, Germany, Georgia, Iceland, Lithuania, Netherlands, Republic of Moldova, Slovenia, Ukraine, Portugal, Greece, Lithuania, Portugal, Spain, and Sweden)

- **counting, consolidation, or tabulation of voters** (Armenia, Austria, Albania, Estonia, Georgia, Malta, Portugal, Poland, Lithuania, Netherlands, Slovak Republic, Slovenia, Spain, Sweden, Switzerland and United Kingdom)
- **scanning of votes** (Georgia, Hungary, Malta, Norway, Spain, Switzerland)
- **online voter registration** (Denmark, Estonia, Luxemburg, Portugal, Switzerland)
- **online application for alternative voting methods** (Germany, Slovak Republic, Slovenia)
- **e-training of EMB officials** (Slovenia, Spain)

Other electronic means were reported by member States (Lithuania, Netherlands, Republic of Moldova, and Portugal) in relation to:

- finding and changing polling station,
- applying for postal voting,
- registering for voting abroad,
- signature collection for candidates and parties,
- finding the history of individual participation in the election (where and when one has voted or made a donation to a candidate),
- providing actual and historical election data.

Portugal indicated that a web-based application is used to allocate the broadcasting time to the lists of candidates. Slovenia indicated using online training for election staff.

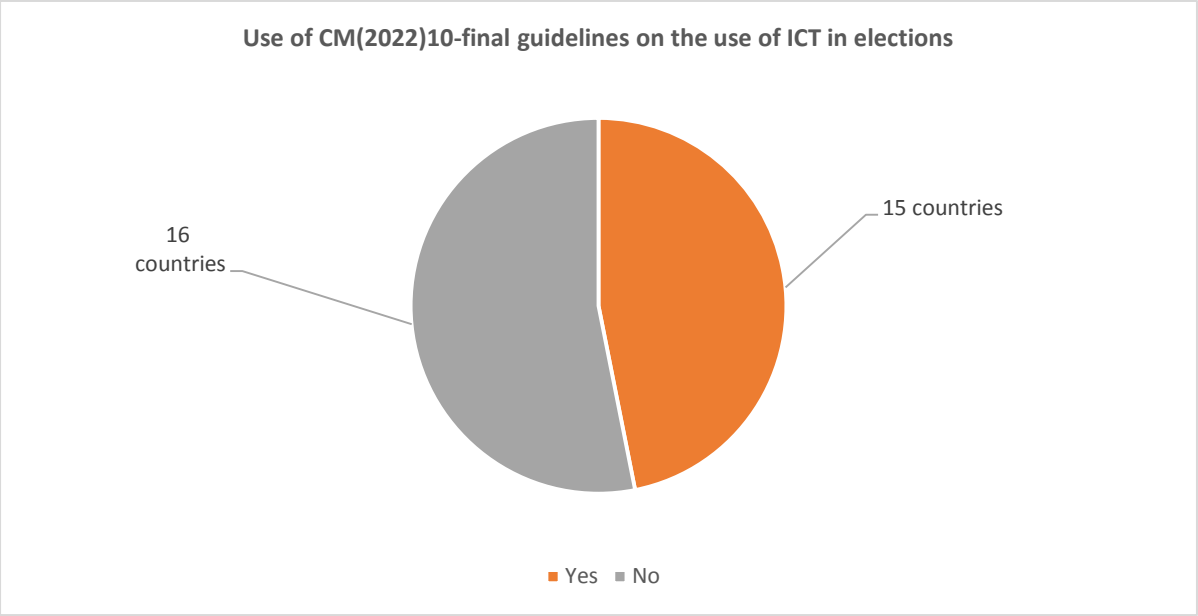
The Republic of Moldova reported using an IT-based system that aims to automate the electoral infrastructure's preparation processes by digitalising the processes of evidence and data management of the elected officials involved in the electoral processes (the lower electoral bodies in the Republic of Moldova are not permanent, so the Register assists them by providing training and other support in times of elections).

Croatia mentioned using a special IT system to oversee campaign finance, enabling election contestants to file their financial reports and supporting documentation into a central database. The financial reports are then made public on the commission’s website, and the commission’s report on campaign finance is also publicly available. Such conduct provides for a transparent overview of campaign finance.

Austria indicated that following the 2023 electoral reform, it would use ICTs in elections more broadly from 1 January 2024 onwards, e.g. by implementing the technical possibility to check one’s right to vote in the Central Electoral Register using a qualified electronic signature.

In the Netherlands a special software is used, which has recently been technically updated and supports political parties, municipalities, and central electoral committees in creating and determining lists of candidates, adding up election results, and calculating the distribution of seats. The process of determining the election results and the distribution of seats must be transparent and verifiable. The electoral legislation stipulates that if the central electoral committee uses software to calculate the result, it will make public which software is used.

If applicable, has your country used the Committee of Ministers CM(2022)10-final Guidelines on the use of ICT in electoral processes? If so, please share how the Guidelines were used.



15 member States (Armenia, Azerbaijan, Belgium, Georgia, Germany, Lithuania, Luxemburg, Republic of Moldova, Norway, Slovak Republic, Slovenia, Spain, Sweden, Switzerland and Ukraine) indicated that the guidelines have been used or considered in relation to national electoral processes. For example, Georgia used it to determine the recent changes to the electoral legislation, particularly provisions:

- related to transparency,
- on building and retaining the necessary capacity to assess, introduce, and manage the use of ICT solutions in the electoral process,
- on the necessary administrative and technical capacity and related resources, including financial resources, to plan, implement, and run the technology successfully and in a sustainable way,
- on a skilled labour force, which should be continuously trained, equipped with the necessary tools and resources, and, most importantly, given enough time to focus on their tasks.

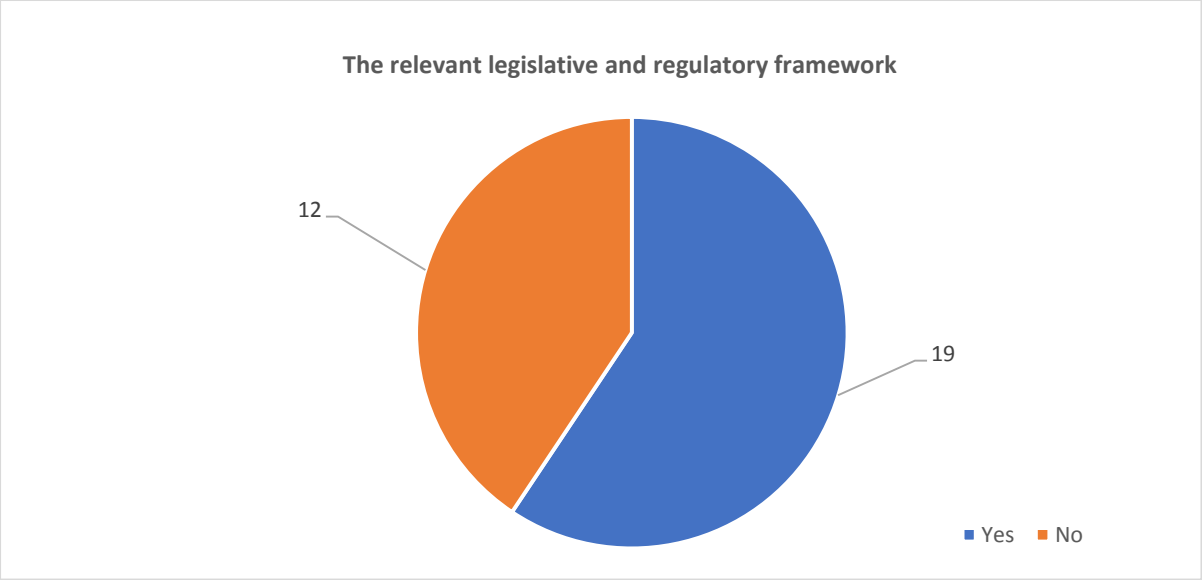
Lithuania reported that the guidelines were being used for defining the ICT strategy of the Central Electoral Commission for the years 2023-2030 and to define the specificities for a feasibility study on internet voting.

16 member States (Albania, Austria, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Hungary, Iceland, Malta, San Marino, Greece, Portugal, Netherlands, Poland, United Kingdom) indicated that they have not used the guidelines so far.

Question 3

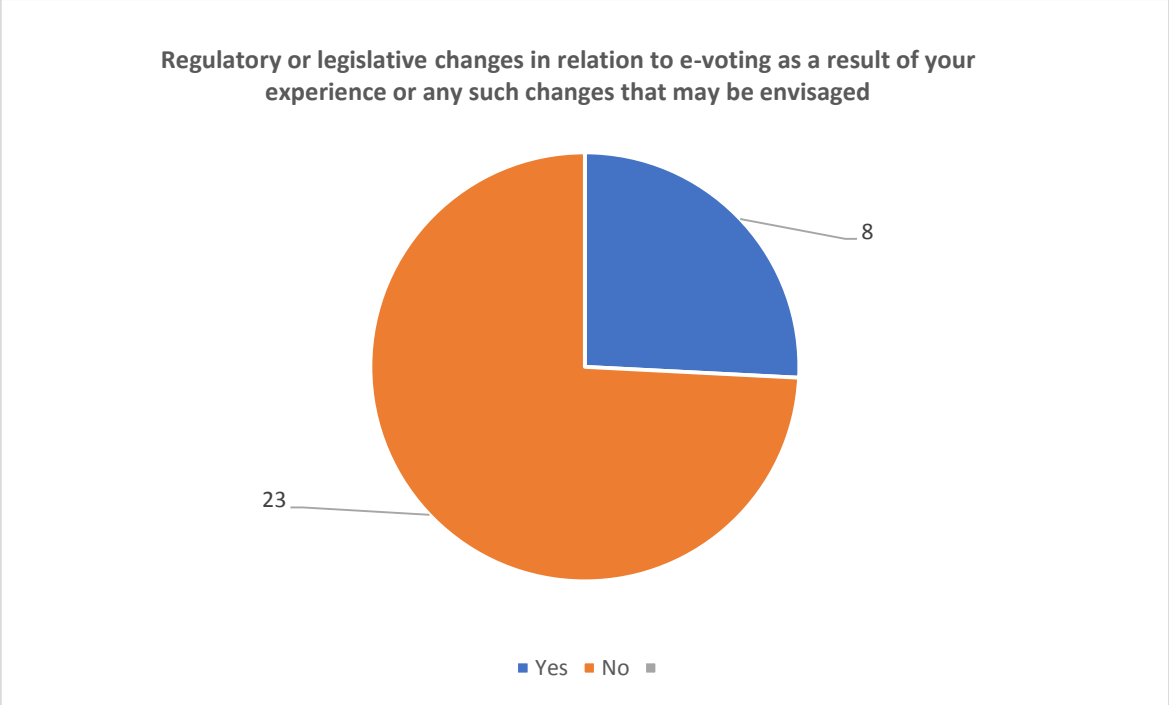
If applicable, please provide information in relation to:

- ***the relevant legislative and regulatory framework***



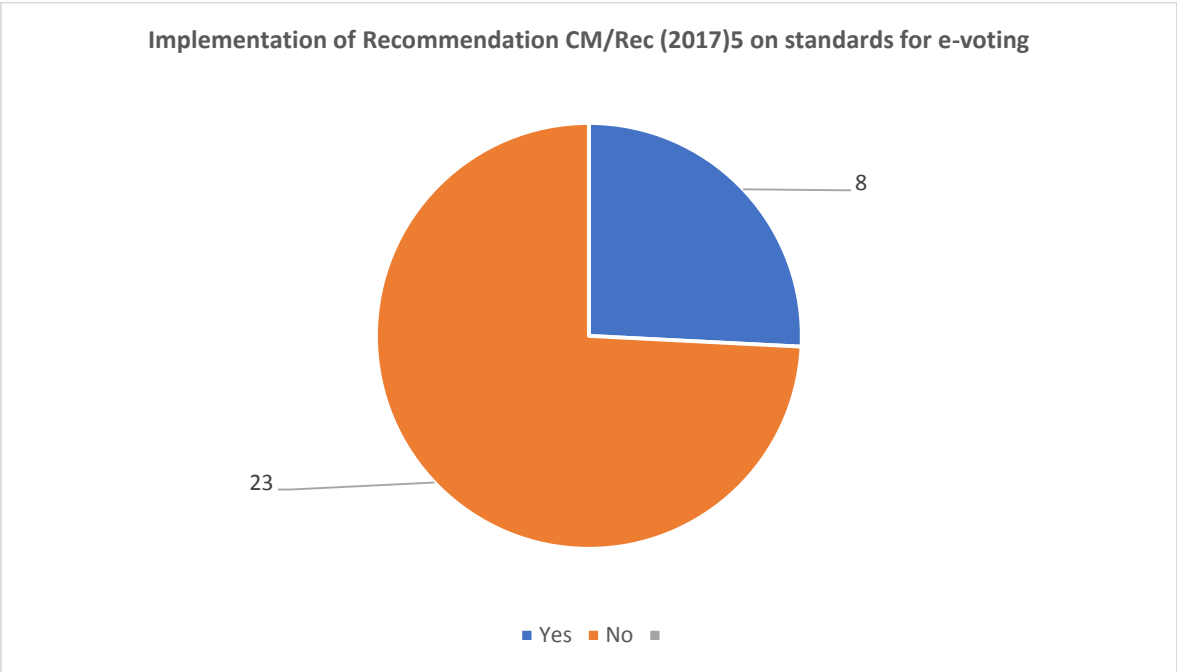
As many as 19 member States (Albania, Armenia, Azerbaijan, Belgium, Bulgaria, Croatia, Czech Republic, Estonia, Georgia, Germany, Iceland, Luxemburg, Republic of Moldova, Norway, Poland, Spain, Sweden, Switzerland and Ukraine) reported including some form of electronic means of voting in their legislative and regulatory framework.

- ***regulatory or legislative changes in relation to e-voting as a result of your experience or any such changes that may be envisaged;***



Eight member States (Albania, Estonia, Georgia, Malta, Moldova, Slovenia, Sweden, Switzerland) reported that such changes had either been implemented or were being contemplated, whilst 23 member States (Armenia, Azerbaijan, Austria, Belgium, Bulgaria, Croatia, Czech Republic, Denmark, Germany, Greece, Hungary, Iceland, Lithuania, Luxemburg, Netherlands, Norway, Poland, Portugal, San Marino, Slovak Republic, Spain, Ukraine, United Kingdom) reported having currently no such plans at this stage.

- implementation of Recommendtion CM/Rec(2017)5 on standards for e-voting;



When it comes to the implementation of Recommendation CM/Rec(2017)5, 23 member States (Austria, Azerbaijan Albania, Bulgaria, Czechia, Croatia, Denmark, Germany,

Greece, Hungary, Iceland, Lithuania, Luxemburg, Malta, Netherlands, Norway, Poland, Portugal, San Marino, Slovenia, Spain, Sweden, and UK) indicated that they have already taken measures to do so while 8 countries (Armenia, Belgium, Croatia, Estonia, Georgia, Republic of Moldova, Slovenia and Switzerland) reported using it as a reference text for certain legislative initiatives.

- specific issues and/or improvements you may have encountered, i.e., accessibility, secret suffrage, cybersecurity, etc.

Albania has reported that to be protected against cyber-attacks, all electronic voting machines are not connected online, and only after the voting is closed, a modem transmits the voting data to a data centre. Georgia adopted a similar approach.

Estonia has issued Technical Requirements for Ensuring the General Principles of Electronic Voting, which heavily draws from the recommendation.

Switzerland emphasised the importance of appointing experts from academia to scrutinise online voting as well as to run a bug bounty programme[1] that includes the cryptographic protocol as well as the system documentation in the scope. As a foundation for public involvement, the revised legislation requires publishing the full source code, system specifications, and documents on operational procedures. All examination reports, and findings brought forward through the bug-bounty program are published. The catalogue of measures agreed upon by the Confederation and cantons contains scheduled enhancements and improvements of the system and the procedures, as well as the trial framework itself. Using this instrument, the Confederation and the cantons aim to ensure that the trial phase serves as a foundation for learning lessons and that the lessons learned are translated to action on a running basis.

Ukraine considers e-voting as one of the ways to facilitate the participation in elections and referendums of citizens entitled to vote and residing or staying abroad in the context of the first post-war elections.

[1] Such programmes offer monetary rewards to ethical hackers for successfully discovering and reporting a vulnerability or problem to the application's developer.