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**Working Group IV** 

## E-democracy: increasing participation and representation

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## E-Voting: Assurance of the Balance Between Accessibility of Voting and Citizens' Trust in Voting Systems

## Dear colleagues,

The electoral right is the constitutionally guaranteed, effective and periodically recurring possibility of citizens to directly participate in running the affairs of the state and dealing with local problems. Free exercise of the electoral rights, objective and honest determination of the results of the expression of the citizens' will are the fundamental principles of the democratic state system, and elections are the mechanism of representation of the voters' interests and the means of legitimization of the elected state bodies.

E-voting is not a new subject of discussion at international seminars or in the national electoral practice. Nevertheless, this fact does not make this subject less topical, lessen the interest of the states and rule out the existence of various opinions on, and approaches to, this subject.

At the present time, many countries are working on the national e-voting projects, including remote e-voting.

The Russian Federation is actively mastering the information technologies in the organization and administration of elections. In the recent years elections in Russia have become a modern and technological process using the up–to–date technologies for vote casting, counting of votes and determination of the election results.

The Russian Federation is one of those states which are keen to develop e-voting. We have the experience in the use of e-voting, take our own approach to its organization and, most importantly, vitally need e-voting.

Dmitry Anatolievich Medvedev, the President of Russia, has set the task of acceleration of the technical modernization of the country's electoral system, creation of technological support for political competition. The head of the state stressed that "modern organization of the electoral process is a part of the national infrastructure of Russia." To deal with this task a Draft Program for Accelerated Technical Upgrading

of the Russian Electoral System has been worked out and presently this program is being implemented along certain lines.

Automation of the electoral system in the Russian Federation is connected, first and foremost, with the Vybory State Automated System of the Russian Federation (GAS "Vybory"). The development of this system began as far back as 1994 and it was placed into service in 2000. In the world practice GAS "Vybory" has become an example of a mega–scale automated information system realized in such form and on such scale. This system is used to automate the information processes in the preparation and administration of elections and referendums and to provide support for the work of election commissions and referendum commissions.

The large scale of election campaigns in the Russian Federation, the vast territory of the country, the need to ensure quick, accurate and transparent vote counting and determination of the election results made it necessary to develop software and hardware facilities adapted to coping with these tasks. Suffice it to say that from 3 to 8 thousand election campaigns are conducted at the regional and municipal levels on each of the unified voting days, which take place in the Russian Federation twice a year.

The Russian electoral legislation contains the definitions of such concepts as "electronic voting machine," "electronic voting" and "electronic ballot." The total number of polling stations where e-voting may be conducted must not exceed one percent of the number of election precincts formed on the given territory.

In 2005, the first experimental batch of e-voting machines (abbreviated "EVM") was manufactured on the basis of the "paperless" voting technology. The EVMs provide the means for electronic voting without the use of paper ballots; automated vote counting; determination of the voting results; compilation of the precinct commission's protocol of voting results.

The EVM uses a touch screen, a microcontroller circuit and special data files, which ensures reliable protection of EVMs from possible attempts at unauthorized impacts and virus attacks. The algorithms and interfaces of the touch screen voting machines eliminate the possibility of the voter accidentally missing some electronic ballot in the course of voting. Portable e–voting machines allow voters to cast their votes outside the polling station.

EVMs have been used at 21 polling stations in five subjects of the Russian Federation at the elections of various levels: in Veliky Novgorod, Orel, Saratov, Suzdal, Ryazan, including the parliamentary and presidential election campaigns in 2007 - 2008. On the unified voting day which took place on March 13, 2011 EVMs were used in ten polling stations in the Republic of Bashkortostan.

In the Russian Federation EVMs are used along with ballot processing machines (abbreviated BPM). Ballot processing scanners were developed in Russia in 2001, the ballot processing machines, in 2003.

BPMs provide the means for automated vote counting at elections and referendums of all levels; simultaneous conduct of elections of up to seven levels with

the presentation of separate voting results for each of them; reception of initial data and transmission of the summary protocol to the higher–level election commission by means of an external medium or via dedicated telecommunication channels.

BPMs have been certified and, since 2004, they have been used at elections of various levels at 9112 polling stations in 32 subjects of the Russian Federation. Over 15 million voters cast their votes by means of these machines. On the unified voting day of March 13, 2011 BPMs were used at 798 polling stations in ten subjects of the Russian Federation.

According to the aforementioned Draft Program, in 2011 e-voting machines are to be set up at 1000 polling stations, ballot processing machines, at 5250 polling stations.

Still another technical innovation was used, so far only as an experiment, in the city of Ryazan, at the elections on the unified voting day in 2010. This is an automated workplace of a precinct election commission, which can be used both at polling stations equipped with BPMs and EVMs and when traditional ballots are used. The automated workplace makes it possible to form at the polling station a legally significant electronic protocol of voting results and automatically transmit it to the higher–level commission and, subsequently, to publish it in the Internet.

The experience gained in the use of software and hardware facilities at polling stations has confirmed that such facilities allow the voting results and the election outcome to be presented more promptly, reliably and accurately. At the polling stations where technical facilities were used to count votes the voting results were obtained 5 to 10 minutes after the last voter dropped his or her ballot into the BPM or EVM. In the conditions of traditional voting with the use of paper ballots the average vote counting time is 2.5 - 3 hours. It is also important that the use of technical facilities makes it possible to minimize unintentional errors which are possible in manual vote counting.

The Russian election officials have mapped out large–scale plans to modernize the election system. By the end of 2012 we plan to install new equipment (EVMs and BPMs) at 15 percent of the polling stations, which will enable each sixth Russian voter to vote with the use of technical facilities; by the end of 2015 ends all polling stations in the whole country will be equipped with modern software and hardware facilities.

The Drat Program for Accelerated Technical Upgrading of the Russian electoral system also provides for the creation of a remote e-voting system to provide additional possibilities for participation of voters in elections without going to the polling station.

The practical need for such method of voting is due to the fact that the number of polling stations where citizens living abroad or in hard-to-reach or remote areas can vote at elections is not less than one percent, and, at federal elections, approximately the same number of polling stations are set up at ships at sea. Neither can we ignore the interest of young voters in modern voting facilities – the young people for whom

the Internet, mobile phones have become everyday sources of information and means of communication.

By way of realizing the innovations three experiments in electronic polling of voters in the course of elections have been carried out with the participation of the Central Election Commission of the Russian Federation and the election commissions of the subjects of the Russian Federation. Electronic polling of voters was accompanied by public opinion polls aimed to find out whether voters were ready to use the new method of voting and how much they trusted it. In Russia such public opinion polls were conducted both on the country–wide scale and in separate regions.

The first experiment in the use of the Internet technologies in the Russian electoral practice was carried out in October 2008 at the municipal elections in the city of Novomoskovsk, Tula Oblast, where disks where used for e-voting.

Compared to Russia's countrywide indicators the positive assessments expressed in the course of the public opinion poll in the city of Novomoskovsk were significantly larger, which was due to the appropriate informational and educational activity of the election commission. According to the results of the post–election poll the percentage of citizens who approved and disapproved the introduction of internet voting was 65 percent and 4 percent, respectively.

In March 2009, the same experiment was carried out in five regions in different parts of the country, both in cities and in the countryside, with the use of different voting methods: disks for e-voting in Volgograd and Tomsk Oblasts and the city of Vologda; remote electronic polling by means of GSM 900/1800 mobile communication networks in the city of Raduzhnyi, Vladimir Oblast; electronic social card in the city of Nizhnevartovsk, Khanty–Mansiisk Autonomous Okrug – Yugra. Experimental electronic polling of voters with the use of mobile communication faculties was also carried out in the city of Kingissepp, Leningradskaya Oblast, in October 2009.

According to the post-election opinion polls conducted in these regions over 71 percent of respondents positively assessed the prospects of the introduction of e-voting and 59 percent believe it possible and necessary. We believe these figures to be good indicators.

The fact that Russian voters trust the new voting systems is demonstrated by the coincidence, with respect to the main parameters, of the results of the experimental electronic polling and the official election results as regards the electoral activity and voter preferences.

Nevertheless, voters also pointed to certain impediments to the use of remote e– voting, particularly, technical difficulties, which were noted by 31 percent of respondents, possible distortion of the results – 27 percent and high financial expenditures – 22 percent. To a certain degree such assessments may be attributed to the inadequate publicity of the technical aspects of the voting procedure.

The experiments made it possible to select the priority technologies of remote voting, which are the technologies using mobile communication means and electronic

social cards. At the same time, certain risks have surfaced, which are connected, in particular, with the possible breach of confidentiality of voting or tampering with the votes processing system and the difficulty of assurance of public supervision over the remote e–voting procedure.

The following conclusions have been drawn from the results of the trials of the software and hardware voting facilities.

1. The task of automation and introduction of information technologies is practically feasible at all levels of election commissions operating in the Russian Federation.

2. The results of the application of software and hardware voting and vote counting facilities demonstrate the high potential of these facilities.

3. We believe that the promising line of technical modernization of the Russian electoral system is transition from a paper ballot to an electronic ballot and to compilation of a legally significant electronic protocol of voting results of the precinct election commission.

4. The buildup of the technical facilities used in the course of voting and vote counting, introduction of various innovative technologies in the electoral process are not at all an end in itself but are instruments for the support of democracy and promotion of political competition, additional factors of honest and just vote counting, means of increasing trust in the electoral system.

5. On the basis of the results already achieved and considering the need and possibility of the use of the information and telecommunication technologies in modern society and further prospects for their development the e-voting in the Russian Federation is regarded as one of the methods to assure the balance between the accessibility of voting and the citizens' trust in the voting systems.

Thank you for attention.