OSCE Chairmanship Seminar on Present State and Prospects of Application of Electronic Voting in the OSCE Participating States Vienna, 16-17 September 2010

Working Session II: International standards, legal regulation and observation of electronic voting

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New Voting Technologies in the OSCE Participating States





New Voting Voting Sustainability **Technologies Process** Cost-Voters Effectiveness Enfranchisement Need Electrographic Cost-Vote-Recorder Methodology Information and Effectiveness Communication Internet Media **Technologies** Legal Voting Trust Context Election Candidates **Technical** International Administration Context Inclusive Observers Stakeholder Certification Management **Public** Organizational Sociopolitical Context Context Transparency Certification **DRE Electronic** Free Expression People of their Choices **Voting Machines**

Content

- Standards
- Reasons
- Context
- Secrecy of the Vote
- Certification/Training
- Observation
- Further Areas of Concern



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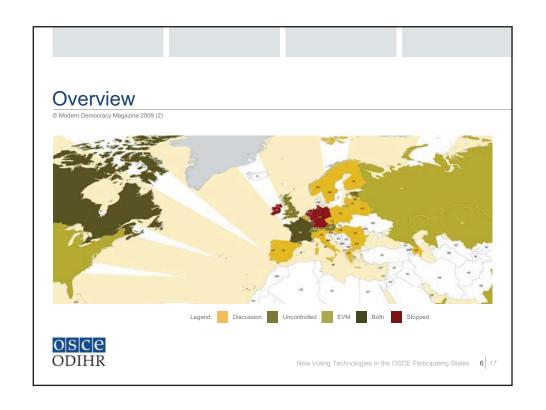
Standards

- Council of Europe Recommendation on Legal, Technical and Operational Standards on Electronic Voting
- OASIS Election Markup Language (EML)
- Protection Profiles (Gesellschaft f
 ür Informatik)
- Several national standards: VVSG, ...

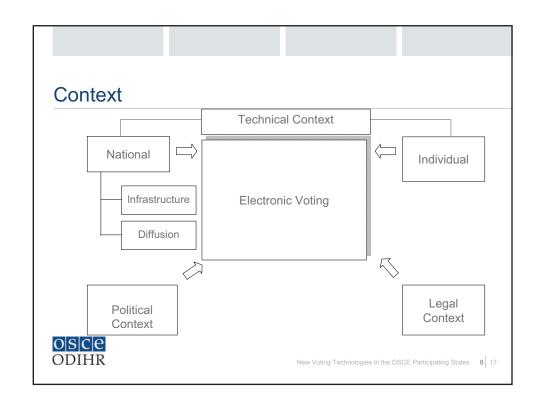


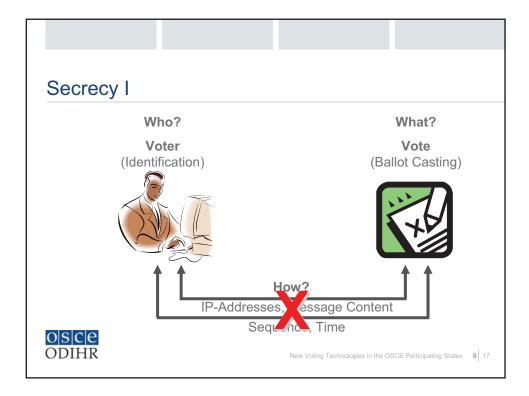
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Forms of Electi	onic Voting		
Place Medium	Controlled (Polling Station)	Uncontrolled (At Home)	
Paper	Ballot Sheet	Postal Voting	canner
Electronics	DRE Electronic Voting Machines	Internet Voting	Optical Scanner
olsicle	Kiosk	Voting	
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Reasons			
casons			
Voter	Administration	Politicians	
Increasing voter mobility	Count quicker and more reliable	Inclusion	
Support for the voter in casting the vote	Improve voter register	Innovation	
Increase accessibility for handicapped voter	Reduce costs on the long run	Change in the electorate (+/-)	





Secrecy II

- Controlled Environment: Electronic Voting Machines having separate machines/applications for identification & vote casting
- Uncontrolled Environment: Remote Electronic Voting Cryptographic Algorithms to establish anonymity

Pre-voting: random numbers During voting: separate servers • Post-voting: double-envelope



Certification

- Ex-ante anaylsis of systems against norms and standards by competent national bodies
- Happening within a framework (regulation, evaluators)
- Non-disclosure Agreement
- Valid for certain period (incl. possibility for de-certification)
- Needs extended period of time
- General availability of results
- Purpose of "Certificate" to check which version of a software is able to fulfill the requirements of a norm



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Training

- IT literacy needed by
 - Election Management Bodies to operate => internal training
 - Voters to use the system to cast votes => Voter education programs



Observation I

- Analysing process
- Principle of Non-Interference
- Transparency is a key challenge Access to documentation might not be sufficient
- Longer observation (certification, deployment, safeguards) esp. with Internet voting
- There are crucial aspects which cannot be directly observed (electronic security, secrecy of ballot, ...)



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Observation II

- Voter-Verifiable Paper Audit Trails are only useful with a meaningful number of recounts
- Should e-voting be implemented in countries with distrust in election administration?
- Role of vendors
- STO must be briefed on issues of EVM
- New role of "E-voting Expert" in core team



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Further Areas of Concern

- Selection Process: How was the system chosen
- Documentation: Access, Language
- Audits / Testing: Independent, transparent, comprehensive
- Costs: High costs in the beginning, savings only on long run sustainability



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Conclusions

- Role separation, principle of non-interference
- New Voting Technologies can be applied in many ways
- While they are new they still have to fully fulfill the existing commitments and standards
- Not a uniform trend, it is not a must
- Trust needs to be established by maximum transparency
- Methodology on Election Observation of New Voting Technologies under development



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